The Official Member Newsletter of the Society for Neuroscience March–April 2002

SfN Neuroscience Newsletter

Moses V. Chao, Chair, Society for Neuroscience Program Committee

Improvements for a Record-Setting Meeting

By Moses V. Chao

As records for attendance and abstract submissions are shattered each year at the Society's Annual Meeting, one may wonder how continual growth of the meeting will be handled. For the upcoming Society for Neuroscience 32nd Annual Meeting, which will be held for the first time in Orlando, Florida, several initiatives will be implemented to accommodate our ever-expanding meeting.

The ability to process more than 15,000 scientific abstracts has been greatly facilitated by the electronic submission process. In 2001, over 98 percent of the abstracts were submitted electronically. The electronic abstract submission process is anticipated to be even more speedy and efficient as more servers and hardware will be available this year to handle any overflow in the number of abstracts. In addition, an improved CD-ROM containing all the abstracts from the meeting will again be available, eliminating the printed *Abstracts* Volume.

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photo courtesy of Orlando CVB

Society Visits Orlando for First Time

SFN 32nd Annual Meeting
Nov. 2–7, 2002

In November, for the first time, the Society for Neuroscience will hold its Annual Meeting in Orlando, Florida. The week of November 2–7 will offer the neuroscience community a full agenda of science as well as an unparalleled variety of attractions.

In addition to being home to the world's most famous theme parks, Orlando has many cultural offerings. These include the CineDome—the world's largest

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Brain Awareness Week Enlightens and Inspires

Audiences throughout North America and as far away as Singapore participated in the excitement of neuroscience during Brain Awareness Week (BAW), March 11–17, 2002. Society members, working through their universities and local chapters, sponsored a variety of events throughout the week to update audiences on the progress and promise of brain research. Attendees had the opportunity to tour state-of-the-art research laboratories, hear public lectures on topics ranging from addiction to stem cell research, and learn about the latest treatments for neurological disorders at community health fairs and other community events.

As in years past, events geared toward students, grades K–12, figured prominently in the week's lineup of events. Volunteers brought neuroscience lessons to hundreds of classrooms, which reached young neuroscience aficionados via the Internet and hands-on exhibits held at popular science museums.

BAW also featured a number of events for academic and clinical audiences such as grand rounds, symposia, and campus-wide educational activities. In the nation's capital, inner-city students at Malcolm X Elementary School got an introduction to neuroscience through a classroom presentation by Paul Aravich of the Eastern Virginia Medical School. DC Mayor Anthony Williams signed a Brain Awareness Week proclamation. In a letter, President George W. Bush commended BAW participants.

"Our members have always taken an active part in public education on an individual basis, and Brain Awareness Week has provided a single, powerful voice for informing the public of neuroscience's many contributions," said BAW steering committee chairman, Bruce McEwen. "It's also an opportunity to expose young people to science on a whole new level and help to inspire the next generation of neuroscientists."

This year, there was also a push to educate policymakers on the need to make neuroscience funding a national priority through

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Inside

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Sergey Fedoroff, President, SNN

Neuroscience in Saskatchewan

In order to promote and give voice to the Society's chartered chapters, each issue of the Neuroscience Newsletter *will feature a different chapter addressing its activities, issues facing its local neuroscience community, and other matters of importance. This issue describes the Saskatchewan Neuroscience Network Chapter of the Society for Neuroscience, prepared by Chapter President Sergey Fedoroff.*

The Brain Awareness initiatives of the Society for Neuroscience and the Dana Alliance for Brain Initiatives brought neuroscientists at the University of Saskatchewan together and stimulated the formation of a chapter of the Society for Neuroscience in March 1997. It was given the inclusive name of Saskatchewan Neuroscience Network (SNN). In June 2001, the University Council approved affiliation with the university, thus granting SNN the right to use university services, including having its own Web site: www.usask.ca/snn.

Throughout the academic year, SNN sponsors four visiting scientists, selected by a SNN committee from nominations submitted by the membership. The visiting scientists each give one public lecture and one seminar and dine or meet privately with the SNN members. On two occasions, the visiting scientists were Grass traveling lecturers, which drew large appreciative audiences. SNN also sponsors a weekly "Brain Jam," a journal club in which both faculty and graduate students participate. Interesting clinical cases are presented from time to time.

"Your Brain Is Important—Take Care of It" was the slogan for the chapter's 2002 Brain Awareness Week (BAW) program, which was launched at a special dinner on the Friday preceding the official commencement of BAW. Dr. Rèmi Quirion, scientific director, Institute of Neurosciences, Mental Health and Addiction, Canadian Institutes of Health Research, was the main speaker. Saskatoon District Health, voluntary health agencies, patient advocacy and service groups, neuroscientists (clinicians and basic scientists) and students attended. On Saturday a workshop on child epilepsy was held, and on Sunday, the Saskatchewan Brain Injury Association held a brunch. The week was proclaimed by the Provincial Government. The week of March 11–17 featured talks to five service clubs on neuroscience topics, three public lectures, and school visits organized by voluntary health agencies. BAW culminated with a "Brain Show" on Sunday, March 17, in the Atrium of Saskatoon City Hospital. About 45 booths and posters were organized by health agencies, research centers, and individual researchers. It also featured a "Brain Walk" with 10 interactive stations, a speaker's corner, a booth for fitting helmets, continuous video shows, interactive computers, and a Brain Game room. A local radio station broadcasted on site.

SNN is very grateful for the help it received from the Society for Neuroscience and the Dana Alliance for Brain Initiatives in the formation of our society. In the five years since its inception, we have found this network to provide a valuable avenue for our members to interact and exchange information as well as to educate the public through our Brain Awareness Week outreach efforts.

Newsletter Managing Editor Resigns

After seven years of service with the Society for Neuroscience, Judy Hittman, the director of communications and marketing, announced her resignation. During her tenure, Ms. Hittman was the driving force behind several successful initiatives, including the Brain Awareness Week campaign, which continues to grow in popularity across the nation. Most recently she took the helm of the *Neuroscience Newsletter* as managing editor. The Society and staff thank Ms. Hittman for all of her contributions throughout the years and wish her luck as she takes on the next set of challenges in her career.

NIH Directors' Column

Report From the National Eye Institute

By Paul Sieving

Paul Sieving, MD, PhD, Director, National Eye Institute

The National Eye Institute (NEI) sponsors a wide-ranging effort to understand the eye and visual system and to address diseases that affect quality of life through loss of sight. NEI is a neuroscience-based institute because many sight-threatening diseases—including photoreceptor cell death from age-related macular degeneration (AMD) and death of ganglion cells and their axons from glaucoma—result from neurodegeneration of cells in the retina. I joined NEI as director in 2001 from the University of Michigan, where I was professor of ophthalmology and director of the Center for Retinal and Macular Degeneration. My own research concerns issues of cell death and survival in hereditary retinal diseases.

The Retina: A Model System for Understanding the Brain

The accessibility of the retina and the visual system provides unique opportunities to investigate a range of neuroscience-related issues in health and disease, from the molecular to the systems levels. Developmental studies of the retina and the central visual pathways have had a substantial impact on other fields of neuroscience. Exploration of retinal circuitry has led to a sophisticated understanding of how neural cells communicate and process information. Biochemical, molecular biological, neurophysiological, and structure-function studies of rod photoreceptor cells have yielded a detailed understanding of this prototypical signal transduction system. Significant advances in understanding visual function at the cellular level include insights into the molecular complexity of individual neuron types, the development of appropriate synaptic connections, factors controlling critical period plasticity, and factors that control axonal guidance and regenerative failure following central nervous system (CNS) injury.

The CNS, including the retina and the optic nerves, is extremely limited in its capacity for regeneration. Hopes for reversing degenerative diseases that affect vision will require elucidating the underlying mechanisms that mediate CNS cell growth, survival, and death.

The accessibility of the retina and the visual system provides unique opportunities to investigate a range of neuroscience-related issues in health and disease, from the molecular to the systems levels.

Age-Related Macular Degeneration

AMD is the most common cause of visual impairment among people over age 65 and massively compromises quality of life in later years. Death of cone photoreceptors in the central retina results in loss of high-acuity vision. Molecular genetics is leading the way in understanding macular degeneration. Stargardt disease is a common autosomal recessive condition that affects juveniles and young adults, and results from mutations in a photoreceptor cell-specific ATP-binding transporter gene belonging to the ABC superfamily. Malfunction of the ABCR (the retina-specific transporter) protein in photoreceptors results in deficient retinoid trafficking, with accumulation of a complex mixture of fluorophores in the RPE, similar to what is seen clinically in AMD. Autosomal dominant Sorsby macular dystrophy typically occurs by middle age, and results from mutations in the tissue inhibitor of metalloproteinase-3 (TIMP-3), leading to RPE atrophy and neovascularization, with loss of central vision. These genetic traits may provide clues to the more complex condition of AMD, in which genes and environment probably interact.

Genetic Therapies on the Horizon

Advances in identifying the molecular bases for blinding photoreceptor and RPE diseases provide opportunities to explore rescue by gene transfer. Naturally occurring and transgenic mouse and other animal models of retinal diseases are available. Gene transfer efforts this past year successfully restored vision in a canine model of human childhood blindness from RPE65 mutations that cause Leber congenital amaurosis (LCA). RPE65 is an evolutionarily conserved membrane-associated protein involved in retinoid metabolism required to supply 11-cis-retinal to photoreceptors. In the absence of RPE65, rod cells develop but fail to function. This NEI-supported work on gene therapy in the visual system affords new opportunities to apply this approach to human neurodegenerative diseases such as LCA. It also suggests opportunities for further studies in other degenerative diseases of the visual system based on the knowledge of system neurobiology.

Visual Neuroscience

NEI supports cutting-edge neuroscience research on the brain systems underlying visual perception and the control of eye movements. New technologies of cortical optical imaging and functional magnetic resonance imaging have created opportunities for molecular and cellular biologists, physiologists, computational biologists, and psychophysicists to cooperate in asking powerful questions about the nature and coding of complex visual information at the highest levels of cortical function and integration.

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Government Affairs Update

Finishing Touches on Funding Bill

In one of the last acts of Congress during the first session of the 107th Congress, NIH funding was increased by $3 billion, bringing total funding for the agency to $23.3 billion in FY 2002.

This level of funding will allow Congress to complete the five-year doubling effort in FY 2003. President Bush has already announced that he is requesting a $3.6 billion increase for NIH this year as the final installment for the doubling effort. The President's budget request is a significant endorsement of the five-year doubling goal and will be very helpful in ensuring that this goal is met this year.

Second Session of 107th Congress

On January 23, 2002, members of both the House of Representatives and the Senate returned to Washington for the start of the second session of the 107th Congress. In this shortened election year, the Congress has a full plate of issues, so it is expected to be an extremely busy legislative session.

> *The Society is working, along with other scientific and advocacy groups, toward completion of the final installment of the five-year effort to double the NIH budget.*

The annual appropriations process began in earnest in February. The Society is working, along with other scientific and advocacy groups, toward completion of the final installment of the five-year effort to double the NIH budget. Increased funding for the National Science Foundation and the VA Medical and Prosthetic Research program remain priorities for the Society.

A ban on human cloning, further debate regarding the appropriate limitations on stem cell research, human subjects research protections, mental health parity, genetic discrimination, and medical privacy are just a few of the many health issues that will be debated during this session of the Congress. We will continue to report on these and other issues as they arise.

Rats, Mice, and Birds

One of the first issues Congress will debate at the start of the new session is whether to permanently change the definition of "animal" contained in the Animal Welfare Act. Following a lawsuit by the Alternative Research Development Foundation, the United States Department of Agriculture (USDA) entered into a settlement agreement in which it agreed to propose a regulation that would change the long-standing policy of excluding rats, mice, and birds from USDA animal welfare regulations. USDA is expected to issue this proposed rule later this year.

The National Association for Biomedical Research (NABR) and other research groups are strongly opposed to changing the existing regulatory framework, which has been in place for 30 years. NABR has asked Congress to prohibit USDA from issuing new regulations by permanently amending the Animal Welfare Act. NABR has estimated that the additional recordkeeping, reporting, and red tape could cost $80–$280 million per year and will not improve animal welfare. Researchers using these animals will be subjected to costly, duplicative, and burdensome new regulations requiring staff to spend more time on paperwork and less time on direct animal care. Society members who are concerned about the proposed change in USDA regulations should contact their Senators and Representatives and ask them to exclude these animals from USDA regulations. Explain to your Senators and members of Congress that these animals are already covered by stringent animal welfare guidelines and requirements.

The Society will continue to provide updates on this important issue. Additional information concerning this issue is available on the Society Web site (www.sfn.org).

President Names Bioethics Council

On January 16, President George W. Bush announced the names of the 17 individuals who will sit on the President's Council on Bioethics. The chair of the Council, Leon R. Kass, MD, is a bioethicist from the University of Chicago. SFN member Michael Gazzaniga, PhD, of Dartmouth College, sits on the Council.

The Council's objective is to advise the President of the many difficult and conflicting moral stances associated with biomedical innovations. Among the list of issues for consideration by the Council are embryo and stem cell research, cloning, assisted reproduction, the uses of knowledge and techniques discovered in human genetics and the neurosciences, and end-of-life issues. The Council may extend its considerations to broader topics, such as the protection of human research subjects.

Acting Director of NIAAA

In January, Raynard S. Kington, MD, PhD, assumed the duties of acting director of the National Institute on Alcohol Abuse and Alcoholism. Dr. Kington was appointed by National Institutes of Health Acting Director Dr. Ruth Kirschstein. He is filling the position vacated by Dr. Enoch Gordis, who retired at the end of 2001. Dr. Kington will serve as acting director while concurrently serving as the NIH associate director for Behavioral and Social Sciences Research and director of the NIH Office of Behavioral and Social Sciences Research, positions he has held since November 2000.

Prior to joining NIH, Dr. Kington was with the Centers for Disease Control and Prevention (CDC), as the director of the Division of Health Examination Statistics in the CDC's National Center for Health Statistics (NCHS). In this capacity, he led an extensive and continuing survey of the health status and health behaviors, as well as the diet of people living in the United States. Dr. Kington's research has focused on social factors as determinants of individual health, by studying the differences in socioeconomic status and in health care service availability and utilization.

Dr. Kington received both his undergraduate and medical degrees from the University of Michigan and completed his residency training at the Michael Reese Medical Center in the field of internal medicine. He was also a Robert Wood Johnson Clinical Scholar at the University of Pennsylvania, and earned his MBA and PhD in Health Policy and Economics from The Wharton School.

National Institute of General Medical Sciences' Cassman To Depart

Marvin Cassman, current director of the National Institute of General Medical Sciences (NIGMS), will be leaving the institute in mid-May to head "QB3," a California-based Institute for Quantitative Biomedical Research. Cassman has served as NIGMS director since August 1993. He was acting director of the institute from November 1992 to the time of his appointment as director. Cassman began his career at NIGMS in 1975 as a health scientist administrator in the Cellular and Molecular Basis of Disease Program Branch.

During his tenure as director, Cassman helped to increase the interdisciplinary approach to biomedical research. He also has encouraged the study of cellular function. Additionally, during Cassman's time with NIGMS, the institute has focused on developments in pharmacogenetics, structural genomics, and other research collaborations. Among these is the development of the Center for Bioinformatics and Computational Biology, where the disciplines of biology, computer science, engineering, math, and physics come together. In this vein, Cassman often encouraged researchers to appreciate the commonalities between the life and physical sciences.

SFN To Host Capitol Hill Reception

The Society for Neuroscience will host a Capitol Hill reception this April. During the event, awards will be given to members of Congress who have raised public awareness of neurological disorders. The event will be attended by neuroscientists, patient advocates, members of Congress, congressional staff, leaders from the National Institutes of Health, and the press. This year's reception, as with previous Capitol Hill events, sponsored by SFN, will serve to bolster the relationship between the Society and members of Congress and to raise awareness of neurological disorders and neuroscience research.

Communicate with Congress: New Service Helps SFN Members

CapWiz is an online legislative tool that will help the Society and its members contact their elected officials regarding issues that impact neuroscience research and funding. It is available on our Web site.

Members can link to CapWiz at www.capwiz.com/sfn/home/ to instantly send a Society-drafted letter to a member of Congress or Senator. CapWiz will even look up your member of Congress or Senator and address your letter using your zip code.

In addition, the site provides:

- Information on current federal legislation that may affect the research community.
- Status of key votes.
- Voting record for each member of Congress.
- Information on state and local elected officials—every one from the county clerk to the governor.
- Contact information for editors of local and national media.

We hope you will find CapWiz an effective tool as part of the Society's comprehensive grassroots effort. We welcome any feedback or suggestions you may have about this new service.

Gage Urges Leaders To Appoint NIH Director

Society for Neuroscience President Fred H. Gage, PhD, sent letters to Secretary of Health and Human Services Tommy G. Thompson and numerous other federal health policy leaders, urging them to "move forward expeditiously with the nomination of a director for the National Institutes of Health." Dr. Gage emphasized that the lack of an NIH director for over two years has serious ripple effects and inhibits the "development of a national strategy to respond to a bioterrorism attack," as well as the "recruitment of the best and brightest to the NIH research efforts."

The letters were sent to Thompson, National Academy of Sciences' President Bruce Alberts, and at least 50 congressional members involved in health and science issues. In his correspondence, Dr. Gage offered SFN's assistance to the White House and the Congress to "ensure that the most capable and worthy candidates are put forth" for their consideration.

You may view the entire letter to Secretary Thompson on SFN's Web site at: www.sfn.org/content/Programs/GovernmentAffairs/news/12_14_2001.htm.

Duke Consortium for Protection of Human Research Subjects

At Duke University Medical Center, a national "Consortium to Examine Clinical Research Ethics" (CECRE) has been established in order to gather detailed information about oversight of clinical trials at medical centers, as well as to devise methods for protecting individuals who participate in such trials. The CECRE group consists of industry

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First Impressions: An Interview with Marty Saggese

Marty Saggese, the new SFN Executive director, shares his initial impressions of the Society and the challenges that lie ahead in an interview with Neuroscience Newsletter *staff.*

NN: Let's start out with a little bit of background about you. What brings you to the world of science?

Saggese: I've been interested in science ever since I was a kid. From ages 6–14, I wanted to be a geologist, when most of my friends couldn't have told you what a geologist was. I went to Stuyvesant High School in New York, a specialized math and science school. Anybody who knew me then would say it was the most natural thing in the world for me to end up working at the Society for Neuroscience.

NN: Of the variety of jobs you've taken on in your career, what is it that made you say, 'I want to work there.'
Saggese: There are really two things that bring my various positions together. One is focusing on how to manage an organization in order to accomplish its vision. And the second is that the vision needs to serve some larger goal than just the immediate day-to-day activities of the organization. It needs to be important in the public sense, and I think SFN fits that profile.

NN: How?
Saggese: Not only is neuroscience an incredibly interesting subject, it's also incredibly important. It's vital, it's growing, it's dynamic. Some of the most exciting things that are happening in terms of scientific advances are happening in neuroscience.

NN: A lot seems to be happening within the Society. Do you find this to be a challenge or an opportunity?
Saggese: Both. This Society has been extremely successful over its 30-year life. In the last 20 years, membership went from 3,000 to nearly 30,000, the budget went from $2 million to $14 million a year, and the staff went from 3 to 51. One question is, is continued growth desirable? We also need to ask how we can better serve the current members of the Society. Council has asked the membership committee to explore and develop ideas and recommendations in this area, and I'm really looking forward to working with the committee on these questions.

NN: What are some of the challenges you foresee with respect to the Annual Meeting?
Saggese: There is no question that our Annual Meeting is a premier venue for sharing outstanding science. The continuing challenge within the meeting is, how do you create a variety of small spaces where scientists can interactively share important science within the framework of a large meeting that maintains its coherence? Every time the meeting grows, the Society faces that challenge.

NN: Were these issues discussed by Council at the Annual Meeting?
Saggese: Yes. Council believes that as a result of this great success, it's time to sit down and take a systematic look to determine the important future directions for the Society. And so, Council has decided to initiate a strategic planning process.

NN: What would be the result of this planning?
Saggese: The idea of the strategic planning process is to identify perhaps five to seven driving strategies that would guide the evolution of the Society.

NN: How would you handle the new directions while adhering to the Society's current mission?
Saggese: Council wants to make sure we're doing both of those things—thinking about the future, and continuing to do what is right in front of us so that we continue to provide the kind of venues for sharing excellent science that is represented both by the Annual Meeting and *The Journal of Neuroscience.*

NN: What are some of the issues Council is considering?
Saggese: A number of Society members and Council members have shared the view that we need to ensure that the Society is as effective as it can be at advocating for our core ideas, such as increased funding for basic research. One of the major outreach goals of the Society is to expand our cooperation with other organizations that are interested in the subject of biomedical research. That coalition has been very successful over the last few years, most notably in attaining a doubling of funding for the NIH over a five-year period. There's a continuing role for the Society to play, and I think all of the organizations that share our goals are working and collaborating to try to figure out where it goes from here.

NN: In addition to research funding, how might the strategic plan focus on the Society's educational objectives?
Saggese: There's a sense in which each successive generation of Society leadership takes on the role of 'gatekeepers' for the profession of neuroscience, and they are dedicated to advancing the profession. That manifests itself in a variety of ways, including programs such as Brain Awareness Week. Not every academic society in the country would take on something like Brain Awareness Week. The notion

that the Society for Neuroscience has an obligation to educate the next generation of neuroscientists, that is, those that are in the high schools, is an important and powerful idea. My sense is that Council believes there may be opportunities to expand some of those kinds of programs.

NN: Recently, there has been some focus on the chapters…
Saggese: Council sees the chapters as one of the greatly underutilized strengths of the Society. Our members in their local chapters engage in a number of educational and outreach activities both to the professional neuroscientists within the community and to their communities at large. And that includes everything from Brain Awareness Week activities to soliciting graduate student applications for some of the travel grants that are offered. Over the past couple of years there's been a successful effort to invigorate the chapters and everybody's been very pleased with the initial results—that could be just the beginning of the process of engaging chapters more fully.

NN: Another important issue we are dealing with is the inevitable movement toward a more technological future. How do you envision *The Journal of Neuroscience* and other Society activities being affected by this direction?
Saggese: The Society has been very creative about looking for ways to take advantage of technology in its ongoing activities—everything from online submission of abstracts, to the itinerary planner, the *Journal,* and our Web site as a primary communications vehicle for the Society. Many of the Society's committees have been pushing for increasing use of technology in their areas of interest, and the Ad Hoc Committee on Electronic Initiatives has really been visionary in identifying leading-edge opportunities for the Society to pursue. As these technologies continue to transform the economic landscape, organizations that don't manage these transitions well are going to have a lot of trouble in the 21st century.

"The most important information technology revolution of the 21st century is going to occur at the intersection between computers and the biological sciences, and our members are right in the middle of many of those issues."

NN: After talking about the various challenges that lie ahead, how do you view the role you've accepted as the new Executive Director?
Saggese: I read an article a couple of months ago that said that the most important information technology revolution of the 21st century is going to occur at the intersection between computers and the biological sciences. And our members are right in the middle of many of those issues. So taking on the Executive Director position at the Society during this time in its life, and at this point in the life of the profession and of the field, is incredibly exciting. And I am grateful to the SFN Council for giving me the opportunity to participate in the life of the Society.

Neuroscience News Releases

To inform the public about advances in neuroscience, the Society sends news releases about new findings to some 1,000 science writers at general-interest publications and other news outlets. Members who will be published in high-profile journals, including *The Journal of Neuroscience, Nature Neuroscience, The Journal of Cognitive Neuroscience, Science, Nature, Cell, The Proceedings of the National Academy of Sciences,* and *Neuron,* are urged to mail the accepted abstract and article to: Joseph Carey, Public Information Director, Society for Neuroscience, 11 Dupont Circle, NW, Suite 500, Washington, DC 20036.

Members should submit their work four to six weeks prior to the journal's publication to ensure enough time for the review, writing, and distribution process. Releases are done in accordance with the journal's embargo policy.

Award Recipients Fred Gage (left) and Bradley Hyman (right) with MetLife Chairman and CEO Bob Benmosche.

Drs. Gage and Hyman Recognized for Alzheimer's Research

Society President Fred H. Gage, PhD, and member Bradley T. Hyman, MD, PhD, are the recipients of the 2001 MetLife Foundation Award for Medical Research in Alzheimer's Disease. The two awardees were honored at the Willard Intercontinental Hotel in Washington, DC, on January 31, 2002.

Dr. Gage is the Vi and John Adler Professor in the Laboratory of Genetics at The Salk Institute for Biological Studies in La Jolla, California. He is also professor of neuroscience at the University of California, La Jolla. Dr. Gage's work concentrates on regeneration of neurons in the adult and aged central nervous system. His pioneering research with neural stem cells has important implications for therapeutic strategies that may some day reverse the effects of neurodegenerative diseases such as Alzheimer's.

Dr. Hyman is a professor and clinical scientist in the Department of Neurology at Harvard Medical School/Massachusetts General Hospital. Dr. Hyman's research program has revealed a hierarchical progression of changes in specific parts of the brain. He has demonstrated that neurofibrillary tangles are a related cause of neuronal loss and dysfunction and that amyloid plaque deposits are less directly correlated with neuronal loss or clinical symptoms. Dr. Hyman has also broken new ground through the observation of plaques in a living animal through the use of a multiphoton microscope.

Both Dr. Gage and Dr. Hyman were recognized previously by MetLife Foundation when they received "Promising Investigator" awards in 1992. Drs. Gage and Hyman have continued to make significant contributions to the understanding of Alzheimer's disease.

New Rolling Membership Application Procedure

The Society for Neuroscience announces the implementation of a new rolling membership application procedure. This procedure eliminates the spring and fall deadlines for membership applications in an effort to afford all applicants an opportunity to become members throughout the year. Applications submitted by the February 15, 2002, deadline were processed in accordance with previous years procedures, and membership dues will be due by May 1, 2002. All applications received after this deadline will be granted immediate review and will receive notification of membership status within a two-to three-week period as long as applications are complete. Dues will be required along with the new application forms at the time of submission.

As the review process will take approximately two to three weeks, there are two deadline dates that will ensure that membership is reviewed and granted prior to abstract submission (April 1, 2002) and prior to the Annual Meeting (October 1, 2002). Applications received 30 days prior to the Annual Meeting will grant applicants membership for the current calendar year only. They will be eligible for the member annual meeting registration fee. Applications received less than thirty-days prior to the Annual Meeting through December 31 will receive a courtesy membership for the remainder of the year, but official membership will not begin until January 1 of the upcoming year. These applicants will *not* be eligible for the member annual meeting registration fee. To view the new membership application online, please visit our Web site at www.sfn.org for a downloadable form. For further information, please contact the Membership Department at membership@sfn.org; 202-462-6688.

Free Color for Members

The need for color illustrations in presenting research results in *The Journal of Neuroscience* continues to increase. Recognizing this need, Council approved a sharp reduction in charges, to $300 per illustration, where the senior editor handling the manuscript deemed color essential. In the ensuing two years it is obvious that this has increased the attractiveness and the scientific value of the papers in the *Journal.*

Given this salutary effect, the Council has responded by authorizing a final reduction of color illustrations to no charge, subject to the following conditions:

1. The reduction will take effect with all papers published in the May 1, 2002 issue and thereafter. There can be no appeal for papers currently in the pipeline.

2. The decision on qualifying for free color will continue to be made by the senior editors on the basis that color is essential to the scientific content of the illustration.

3. The decision on qualifying for free color will also depend on both the first and the last author being members

of the Society for Neuroscience at the time that the manuscript is submitted. To accommodate authors who are not members but wish to be, the Society has implemented a rolling membership application process. This will enable applications for membership to be submitted at any time during the year, and for approvals to be made within a two- to three-week time frame. Details of the application and approval process are posted on the SFN Web site. The criteria 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.

Annual Meeting News Coverage

The Society for Neuroscience's 2001 Annual Meeting in San Diego had record-breaking attendance by both members of the Society and the media. More than 120 reporters from national and international newspapers, journals, and other publications registered to cover the meeting, which led to extensive media coverage of the 15,000 presentations.

Press conference topics included possible vaccinations for neurodegenerative diseases, maternal care, stress and memory, transplantation, exercise, violence, pain, and sleep as well as multiple approaches for treating Alzheimer's disease, Parkinson's disease, and ALS. New neurological terrain was explored in press conferences about music, deception and intention, and sensory illusions.

Tallies so far indicate that 180 individual presentations have received national and international attention. Overall, some 656 stories have been printed or reprinted based on the meeting. Many of the items picked up by media outlets this year focused on the effects of certain drugs on the brain, exercise, emotional states, and other lifestyle issues.

Publications worldwide picked up a story about an animal study showing that Ritalin, a drug often prescribed to treat attention deficit hyperactivity disorder in children, might cause long-term changes in the brain similar to those seen with drugs like cocaine and amphetamines. The story ran in newspapers across the United States and in the BBC News, *The London Daily Telegraph*, and *Business Week*.

Exercise-related studies also garnered much media attention. Research from an abstract describing how people could increase their muscle power merely by thinking about exercising was written up in *The Washington Post, Seattle Post Intelligencer*, and *The Daily Iberian*. Findings from another study showing that jogging improves cognitive function received attention from *The Dallas Morning News, Health Magazine*, and *Psychology Today*.

A study demonstrating that brain scans can determine if someone is telling a lie sparked articles worldwide, including in *The Los Angeles Times, Detroit News, New Scientist, Times of India*, and *The Canadian National Post*.

Another story describing epilepsy in the Biblical figure Ezekiel was published in *The London Guardian, New Scientist*, and *The Jerusalem Post*.

DATES *and* DEADLINES

March 25
Nominations Deadline for the 2002 Lindsley Prize

April 22
Receipt Deadline for Paper Abstract Submission

May 6
Electronic Abstract Submission Deadline

May 13
Deadline for Receipt of Replacement Abstracts

May 22
Deadline for Withdrawal of Abstracts

June 3
Nominations Deadline for Chapter Graduate Student Travel Awards

June 3
Application Deadline for Minority Conference Travel Fellowships

Nov. 2–7
32nd SFN Annual Meeting in Orlando, Florida

BAW continued from cover

letter-writing and one-on-one visits by Society members with representatives in their home districts.

Approximately 1,300 scientific organizations, government agencies, advocacy groups, and other partner organizations joined with SFN and the Dana Alliance for Brain Initiatives in organizing events during this week-long public education blitz. Highlights of SFN member events follow. For the complete calendar of Brain Awareness Week events, visit www.sfn.org/baw/calendar.cfm.

Atlanta Chapter of SFN/
Center for Behavioral Neuroscience
In Atlanta, young minds were challenged through a Brain Bee competition and school visits by Georgia State University's BioBus, a 30-foot mobile laboratory containing brain models and specimens.

Boston Area Neuroscience Group
A keynote lecture, titled "Genetic Studies of Neurotoxicology of Stress," was presented at Boston University followed by dinner, poster presentations, and live music. Additionally, Boston-area schools will receive classroom visits through the Graduate Program in Neuroscience at Tufts University School of Medicine.

> ***"We hope public alertness created by BAW will translate into a powerful signal to the legislators for the necessity to support neuroscience research."***
>
> **–Dr. Sergey Fedoroff, Saskatchewan Neuroscience Network**

Brown University
A workshop was held for science teachers featuring neuroscience as a basis for teaching basic biological, physical, and chemical principles.

Christian Brothers University
A seminar called "What's On Your Mind?" introduced middle school students to brain morphology through hands-on demonstrations.

Concordia University
Faculty and students of Concordia University gave presentations and demonstrations about the brain at local elementary schools.

Creighton University
A neuroscience exposition called "Brains Rule!" was featured at the Ann Arbor Hands-On Museum and the Maryland Science Center. This interactive exhibit challenged neuroscience professionals to create fun, hands-on neuroscience activities for elementary students, who then voted on the best activities.

Dalhousie University
Local school children went hands-on with neuroscience at booths set up on campus during Kids Day, while the general public learned about the prevention and treatment of neurological disorders at information booths at a local mall.

Des Moines University
During "March Madness," the Des Moines University Neuroscience Club, together with the Geriatrics Club, presented a series of public talks by area physicians and scientists on the aging brain and disorders such as dementia, Alzheimer's disease, and Parkinson's disease.

Eunice Kennedy Shriver Center
Children participated in laboratory demonstrations and tours of ongoing research projects, including DNA purification, visual plasticity, taste and smell, infant vision, and gender differences in brain and behavior.

Georgetown University
Area middle school students visited Georgetown University Hospital Center to learn about the brain, its functions, some of its illnesses, and current research.

Greater New Orleans Society for Neuroscience
Local neuroscientists held demonstrations and hands-on activities for visitors to the Louisiana Children's Museum.

Jagiellonian University, Poland
A public lecture titled "Brains, Genes and Behavior" was repeated throughout the week for area residents.

Lake Erie College of Osteopathic Medicine
Lake Erie hosted an evening forum for high school students, Scout troops, and their parents to discuss career possibilities in neuroscience. Representatives from the fields of research, medicine, and pharmacology participated.

McGill University
Graduate students from McGill University, Université de Montréal, and Concordia University visited 75 elementary and secondary schools in the greater Montreal area. A public lecture series running through the week also took place at the Montreal Neurological Institute.

National Institute for Medical Research
Dr. Vassilis Pachnis talked to students about the formation of the enteric nervous system.

National Neuroscience Institute of Singapore
& National University of Singapore
A symposium called "Exploring the Brain" featured renowned neuroscientists and clinicians from the United States, Europe, Australia, and Asia who delivered lectures on cutting-edge research in the field of neuroscience.

Oregon Health and Science University
OHSU had an ambitious program for BAW, including a new exhibit at the Oregon Museum of Science called "Brain: The

World Inside Your Head." The program featured virtual reality exhibits, video games, optical illusions, innovative special effects, and hands-on displays that help demystify the workings of the brain.

Osmangazi University, Turkey
The First National Neuroscience Congress took place in Turkey and was hosted by the Neuroscience Society of Turkey and Osmangazi University during Brain Awareness Week.

Pittsburgh Neuroscience Society
Twenty-five students from five area high schools competed for a chance to represent Pittsburgh, Pennsylvania, in the upcoming 2002 International Brain Bee Competition.

The International Autistic Research Organization/ Autism Research Ltd.
In London, autism was the topic of a morning lecture for the public titled "The Brain Basis of Cognitive Function in People with Autism."

Two Rivers Professional Development Center
The Center sponsored a Brain Bee, a course on learning and memory, and a distance learning class titled "The Brain and Reading."

University of Calgary
Brain Awareness Day will be held on April 6 and will include booths and demonstrations as well as lecture topics such as "Introduction to the Mind and Brain" and "Stroke: Causes and Treatments."

University of Illinois at Urbana-Champaign
A special Brain Awareness Day of activities and exhibits will be featured at the Orpheum Children's Science Museum on April 13. The group will also hold a Brain Awareness Art Contest with local elementary and middle schools.

University of Iowa
At the Kids Judge! Neuroscience Fair, 150 fifth graders from area schools learned about all aspects of neuroscience with hands-on activities led by UI neuroscientists. The next day the fair was open to the public.

University of Maryland, Baltimore Campus
Brain Awareness was a statewide affair as the governor declared Brain Awareness Week in Maryland. In addition to holding the International Brain Bee finals, the University of Maryland hosted exhibits and demonstrations at the Maryland Science Center, and a number of other activities throughout the week.

University of Texas Health Science Center at Houston
Genes and the brain was the topic of activities, including lab tours and demonstrations, two public forums, and "BrainNight" at a local museum.

Brian Huwe, a 10th grader at Oakland H.S. in Murfreesboro, TN gets hooked up for an EEG by John Marshall, M. Ed., a graduate student at Vanderbilt and EEG technician. Brian was the first place winner of the 2001 Tennnessee State Brain Bee.

University of Toronto
Students from 13 different Toronto schools participated in the Brain Olympiad, hosted by the Program in Neuroscience, the Department of Physiology, and the Neuroscience Network of the University of Toronto.

University of Trieste & B.R.A.I.N.
An Internet game called BRAINet challenged students and adults to track down the answers to questions about the brain on neuroscience Web sites. The organization also sponsored "Of All the Brains," an exhibition with interactive demonstrations on psychophysics and animal learning.

University of Virginia
UVA held a number of special educational events on its campus, including displays, exhibits, and lab tours.

University of Washington
UW hosted an open house for 320 students grades 4–8. Students in an after school enrichment class, "Brain 101," learned about nerve cells, senses, memory, and brain health.

University of Wisconsin–Madison
Youngsters were encouraged to "Be a Brain Science Investigator" during a hands-on exhibit at the Madison Children's Museum. Public lectures were also held during the week.

Vanderbilt Brain Institute
Vanderbilt had a full slate of events for Brain Awareness Week, including a statewide Brain Bee via Vanderbilt's Virtual School Web site, an art contest, a hands-on brain fair at the Cumberland Science Museum, and public lectures on topics including Ecstasy and other club drugs.

Virginia Commonwealth University
Dr. Richard Costanzo visited the 2nd grade classes of a local elementary school to talk about the brain and the five senses. This was the 15th year that he brought neuroscience to area classrooms.

Meeting continued from cover

Extension of Abstract Deadline

These improvements in the abstract submission process have enabled SFN to extend the submission deadline. Mark your calendars: This year the deadline for abstracts submitted online is May 6, 2002. Abstracts should be submitted as early as possible to avoid system problems at the last minute.

Improved Abstracts CD

A CD-ROM containing all abstracts and an itinerary planner will again be provided free to members in place of the printed *Abstracts* Volume. In response to feedback from meeting attendees, a number of improvements will be made to this year's CD, including the ability to print abstracts more easily and to search for presentations of interest more efficiently. Making itineraries for the meeting will be even more simple and portable.

2002 Abstracts-at-a-Glance

Improvements for Orlando Meeting

- More servers to facilitate large volume of submissions.
- More time to submit abstracts (Online deadline of May 6, 2002 vs. April 23, 2001).
- Improved search function for Abstracts/Itinerary Planner CD

Abstract Submission Deadlines

Paper: (receipt deadline) Monday, April 22, 2002.
Online: Monday, May 6, 2002.

The abstract site will begin accepting submissions on March 8, 2002. Submission instructions are now available at www.sfn.org/am2002. Watch for further information by e-mail and a reminder postcard in the mail.

Fostering Diversity in Topics and Speakers

To accommodate the growing and diverse interests of the Society, more of symposia and special lecturers will be selected. For the 2002 meeting, there will be 28 symposia and at least a dozen special lectures scheduled over five days, covering all the themes of the meeting. Furthermore, to allow for the most recent developments, the application deadline for symposia was pushed back two months to January 2002. In addition to featuring the most exciting pieces of work, a balance of new and established investigators from a broad geographical representation was sought. The Program Committee also encouraged greater representation of women and minorities as invited speakers. See page 13 for titles of the 28 symposia that will be featured at this year's Annual Meeting.

Increasing Attendance from Beginning to End

Over the past several years, the Annual Meeting has been plagued by poor attendance on the last day. The problem is serious, as many try to avoid participation in poster and platform sessions during the Thursday morning session. The dwindling number of attendees at these latter sessions is a concern to presenters. The Program Committee is aware of this problem and is actively seeking short- and long-term solutions. One potential solution is to eliminate the last day and start the meeting earlier. Another approach is to schedule more activities during the latter part of the week that encourage attendees to prolong their stay. Given the enormous interest in neuroscience from all fields of biology, maximizing the time at the SFN Annual Meeting to fulfill the needs of all attendees is an essential goal. We will be bringing you more information on plans for Orlando in this newsletter and on the SFN Web site at www.sfn.org.

Over 98 percent of the abstracts were submitted electronically in 2001.

We look forward to your abstract submissions as we prepare for a week of first-rate neuroscience in Orlando.

Orlando continued from cover

domed theater and planetarium, the Charles Hosmer Morse Museum of American Art, and the Orlando Museum of Art, with a fascinating collection of 19th- and 20th-century American art, pre-Columbian artifacts, and African objects of art.

Orlando offers a world of natural wonders. The Orlando area is home to seven state parks, all filled with a variety of plants and animals. Other attractions for nature-lovers include the Harry P. Leu Gardens, featuring 50 acres of magnificent flowers and plants, including the largest camellia collection and formal rose garden in the South, and The Audubon of Florida National Center for Birds of Prey with an array of rare, colorful birds.

Attendees will also enjoy the surroundings of the award-winning Orange County Convention Center. With more than 1.1 million square feet of spectacular exhibit and meeting space, it was recently ranked as one of the nation's top convention facilities by *Tradeshow Week*.

"The convention center is state of the art and logistically optimal for the SFN meeting. We look to join the list of many other organizations that have had record-breaking attendance in Orlando," commented Society Annual Meeting Director BJ Plantz. "The city also offers an abundant array of accommodations, a pleasant climate, and a wealth of dining and entertainment options."

Watch this newsletter and visit our Web site at www.sfn.org for news on the Society's 32nd Annual Meeting and additional information on attractions in and around the Orlando area.

2002 Symposia Listing

Theme A—Development
1. Expanding Role for Ephrins in Nervous System Development and Response to Injury
2. Retrograde Neurotrophin Signaling in Axons: Mechanisms and Significance
3. Transcriptional Regulation of Neural Identity

Theme B—Synaptic Transmission and Excitability
1. Spike-Timing Dependent Plasticity: From Synapse to Sensation
2. The Endogenous Cannabinoids: Retrograde Modulators of Synaptic Activity
3. Exocytosis at Ribbon-Type Synapses
4. Calcium Channel Interactions with the Transmitter Release Site
5. NMDA Receptor Targeting and Trafficking: Implications for Synaptic Transmission and Plasticity

Theme C—Sensory Systems
1. Cortical Feedback in the Visual System
2. Primate Color Vision
3. Sensory Functions of Bladder Urothelium
4. Transduction and Sensitization in Primary Sensory Neurons

Theme D—Motor Systems
1. Deep Brain Stimulation: Mechanisms of Action
2. Neural Mechanisms of Intersegmental Coordination
3. Neurobiological Mechanisms of Circadian Output

Theme E—Autonomic, Limbic, and Other Systems
1. Blaming the Brain for Obesity: Neural Control of Food Intake and Energy Homeostasis
2. How and Where Do the Emotional and Motor 'Brains' Talk to Each Other

Theme F—Cognition and Behavior
1. Cortical Mechanisms in Executive Control of Behavior
2. Genes and Social Behavior
3. Cellular and Molecular Biology of Cognitive Aging

Theme G—Neurological and Psychiatric Conditions
1. Novel Approaches and Effective Treatments for Schizophrenia
2. Reinforcement and Relapse: Insights into Molecular Mechanisms of Drug Abuse
3. Presenilin-Dependent Nuclear Signaling
4. Models of Parkinson's Disease
5. Epilepsy Triggers, Targets, and Treatments: The Transformation from Physiological to Pathological and Back Again
6. Delivering the Cures: Where Are They?
7. Etiology and Mouse Models of Brain Tumors
8. Gene Therapy for Neurological Disease: Transition to the Clinic

National Brain Tumor Foundation: Giving Help, Giving Hope

by Robert Tufel, Director of Patient Services, National Brain Tumor Foundation

Libby Stevenson, NBTF board member and brain tumor survivor, speaking at a rally during Brain Tumor Awareness Week while North American Brain Tumor Coalition members, Bonnie Feldman and Larry Pizzi, look on.

Each year, more than 185,000 people in the United States are diagnosed with either a primary or metastatic brain tumor. The incidence of brain tumors has increased by 25 percent since 1973. While the causes of brain tumors are still unknown, treatment options and diagnostic techniques have improved. Patients are taking an increasingly active role in their own care and exploring all the options for treatment and support.

The National Brain Tumor Foundation (NBTF) was founded in 1981 by a group of patients and family members. Initially focused on supporting research, NBTF has expanded its mission to provide supportive and educational services to brain tumor patients and their families.

NBTF funds this promising research through a variety of mechanisms. Last year, we provided grants to research projects in the areas of blood stem cells and brain tumor vascularization, high-throughput analysis of gliomas, neural stem cell-based cytokine delivery, and nitric oxide and chemotherapy. We also provided grants for quality-of-life research projects for both children and adults with brain tumors.

Last year, we provided grants to research projects in the areas of blood stem cells and brain tumor vascularization, high-throughput analysis of gliomas, neural stem cell-based cytokine delivery, and nitric oxide and chemotherapy.

NBTF also funds research projects through the American Association of Neurological Surgeons, the North American Brain Tumor Consortium, and New Approaches to Brain Tumor Therapy.

Last year, NBTF funded the first research grant for complementary and alternative medicine in the field of neuroscience for research on "Systemic Antioxidant and Oxidative Stress Levels and Associations with Nutrient Intake in Patients with Untreated Cerebral Glioma."

During 2002, NBTF will award more than $600,000 in research grants and expand our research projects to include epidemiology and radiation therapy.

Research is not the only area in which NBTF works to fight brain tumors. The Patient Services Department offers a wide variety of patient support programs in the belief that patients and their family members have the right to be informed about their condition and treatments. At NBTF we are constantly striving to provide the most up-to-date information and to be as responsive as possible to our patient constituency. As one patient stated, "Beginning with the National Brain Tumor Foundation's first conference in 1990, there's been a tremendous growth in sharing of information between patients and professionals. The Internet, conferences, support groups . . . all of these things have helped provide information to many patients and families."

Participants in Brain Tumor Awareness Week, sponsored by the North American Brain Tumor Coalition, gather in Washington, DC, and across the nation to advocate for the brain tumor community.

Patients can also find more information through NBTF's Patient Information Line, national and regional conferences, contact with other patients and caregivers, *Search* (the quarterly newsletter), printed information, support groups, a medical advice nurse, a Web site (www.braintumor.org), and teleconferences. In line with NBTF's mission, all NBTF material is available free of charge to patients by calling 800-934-CURE (2873).

In September 2002, we will be sponsoring our seventh National Brain Tumor Conference in conjunction with Barrow Neuro- logical Institute and the University of Colorado Cancer Center. In keeping with NBTF's goal of providing the most up-to-date information to as many patients as possible, we will be video-broadcasting part of this conference among the three conference sites.

At NBTF we believe that it is crucial for researchers, health professionals, and patients to work together in fighting brain tumor disease. For patients, the work of researchers is of utmost importance and interest because it directly affects their lives. For health professionals and researchers, understanding the daily struggles of brain tumor patients gives meaning and significance to their work. NBTF strives to foster communication among these groups and find ways to treat and cure brain tumors.

For more information about the National Brain Tumor Foundation, please call 510-839-9777. For questions regarding the NBTF research grant program, please visit our Web site at www.braintumor.org or contact Robert Tufel, MSW, MPH, director of patient services, at tufel@braintumor.org.

DECEMBER 2001

brain BRIEFINGS

WHILE COMEDIANS HAVE SPENT A GREAT DEAL OF TIME FOCUSING ON HUMOR AND LAUGHTER, SCIENTISTS MOSTLY IGNORED THE SUBJECT. IN RECENT YEARS, HOWEVER, SEVERAL GROUPS OF RESEARCHERS STARTED TO SCRUTINIZE THIS FORM OF MERRIMENT. THEIR INVESTIGATIONS ARE SHEDDING LIGHT ON HOW THE BRAIN PROCESSES HUMOR AND PROMPTS LAUGHTER. RESEARCHERS BELIEVE THAT UNCOVERING THE BRAIN AND BODY'S SPECIFIC RESPONSE TO POSITIVE STIMULI LIKE HUMOR AND LAUGHTER MAY LEAD TO NEW THERAPIES.

HUMOR, LAUGHTER AND THE BRAIN

What do you get if you cross a student with an alien? Something from another universe-ity!

You'll also get unique activity in the brain if you think this joke is funny, according to increasing evidence. The new investigations into how humor and laughter influence the brain are leading to:

- A clearer understanding of how positive emotions affect brain mechanisms.
- Creative ideas for new therapies for emotion disorders and pain.

While many researchers have tracked the brain mechanisms of depression, fear and anger, they mostly ignored positive emotions. In recent years, however, a troupe of scientists has started to take laughter and humor much more seriously. Some new work teases out how the brain processes a funny experience. While it's still in an early phase, studies suggest that on a simple level the complex process involves three main brain components. One part, a cognitive thinking part, helps you get the joke. A second movement part helps move the muscles of the face to smile and laugh. And a third emotional part helps produce the happy feelings that accompany a mirthful experience.

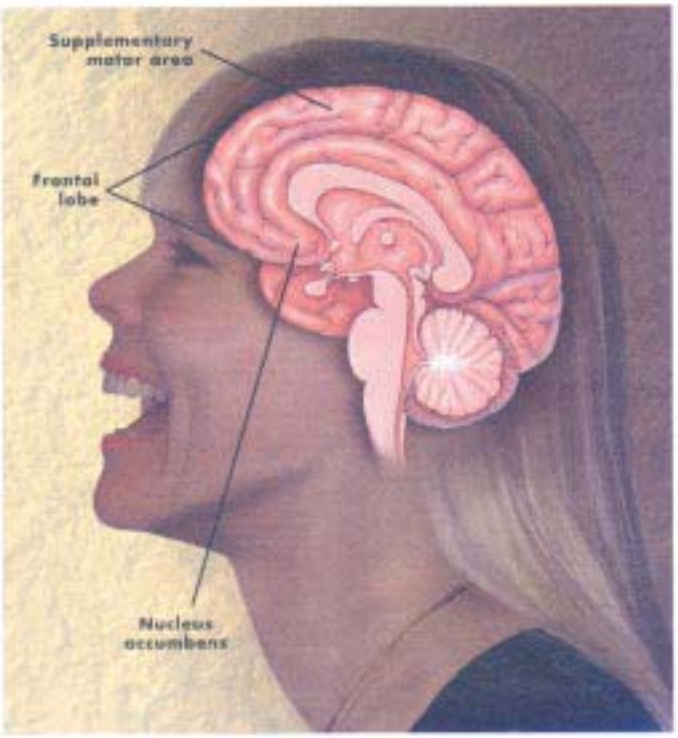

ILLUSTRATION BY RYAN HEIR

RESEARCHERS BELIEVE WE PROCESS HUMOR AND LAUGHTER THROUGH A COMPLEX PATHWAY OF BRAIN ACTIVITY. PARING IT DOWN TO A SIMPLE LEVEL, STUDIES SUGGEST THAT THERE ARE THREE MAIN BRAIN COMPONENTS. COGNITIVE AREAS, SUCH AS SECTIONS OF THE FRONTAL LOBE NEAR THE FOREHEAD, HELP YOU GET THE JOKE. ANOTHER COMPONENT INVOLVED IN THE PROCESSING IS A MOVEMENT AREA, LIKELY THE SUPPLEMENTARY MOTOR AREA. IT IS THOUGHT TO TRIGGER THE MUSCLE MOVEMENTS TIED TO SMILING AND LAUGHING. LAST, RESEARCHERS BELIEVE AN EMOTIONAL COMPONENT ELICITS THE HAPPINESS YOU FEEL AFTER A FUNNY EXPERIENCE. ONE STUDY SUGGESTS THAT THE NUCLEUS ACCUMBENS, A SMALL AREA DEEP IN THE BRAIN, HOLDS THIS DUTY.

In one of the new studies, researchers used imaging equipment to photograph the brain activity of healthy volunteers while they underwent a sidesplitting assignment of reading written jokes, viewing cartoons from *The New Yorker* magazine as well as Gary Larson's "The Far Side" and listening to digital recordings of laughter. Preliminary results indicate that the humor-processing pathway includes

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PAST ISSUES
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parts of the frontal lobe brain area, important for cognitive processing; the supplementary motor area, important for movement; and the nucleus accumbens, associated with pleasure.

Other work also supports the notion that parts of the frontal lobe are involved in humor appreciation. One study that imaged people while they listened to jokes found that an area of the frontal lobe activated only when they thought a joke was funny. Another study found that compared with healthy individuals, people who had damage to their frontal lobe areas were more likely to choose a wrong punch line to written jokes and didn't laugh or smile as much at funny cartoons or jokes.

Additional findings also back the idea that the supplementary motor area triggers smile and laughter movements. For example, one new study imaged the brains of individuals and recorded the movement of the main muscles involved in laughter while they watched scenes from the British comic series "Mr. Bean." High muscle activity from laughter linked to high activity in the supplementary motor area. In another example, researchers accidentally found proof of the area's role while using electrical stimulation to search for the cause of a young girl's seizures. Electrically stimulating her motor area triggered peals of mirthful laughter.

Currently, researchers are trying to further understand the precise roles that different brain areas play and how their functions may overlap. They also want to determine how the processing may tie to disease. For example, scientists plan to examine the activity of depressed people to see if their humor processing ability is impaired. If it is, then boosting the system's activity may help depression.

Already some small studies hint that the brain activity from humor may have a medical benefit. For example, human tests have found some evidence that humorous videos and tapes can reduce feelings of pain, prevent negative stress reactions and boost the brain's biological battle against infection. Studies continuing this work are underway. Researchers hope to uncover whether humor or some other component, such as distraction, is the predominant factor in the results.

While much more needs to be known in this area, at least humor doesn't seem to spur any harmful effects.

Seinfeld reruns never looked so good.

brain BRIEFINGS

JANUARY 2002

SEVERAL DISEASES ONCE THOUGHT TO HAVE VERY LITTLE IN COMMON NOW APPEAR TO SHARE A KEY FEATURE. CELL PORES, KNOWN AS ION CHANNELS, NORMALLY EITHER DIRECTLY OR INDIRECTLY AFFECT CELL COMMUNICATION. BUT FOLLOWING A DECADE OF RESEARCH, SCIENTISTS HAVE FOUND EVIDENCE THAT DEFECTS IN THE CHANNELS CAN GIVE RISE TO A RANGE OF SEEMINGLY DIVERSE DISEASES THAT INTERMITTENTLY ATTACK PATIENTS WHO ARE OTHERWISE HEALTHY. THE DISCOVERY MAY LEAD TO NEW THERAPIES THAT SPECIFICALLY TARGET THE CHANNEL DEFECTS AND PREVENT THE ERUPTION OF A VARIETY OF ATTACKS, INCLUDING THE SEIZURES THAT ARE CHARACTERISTIC OF EPILEPSY AND MIGRAINE HEADACHES.

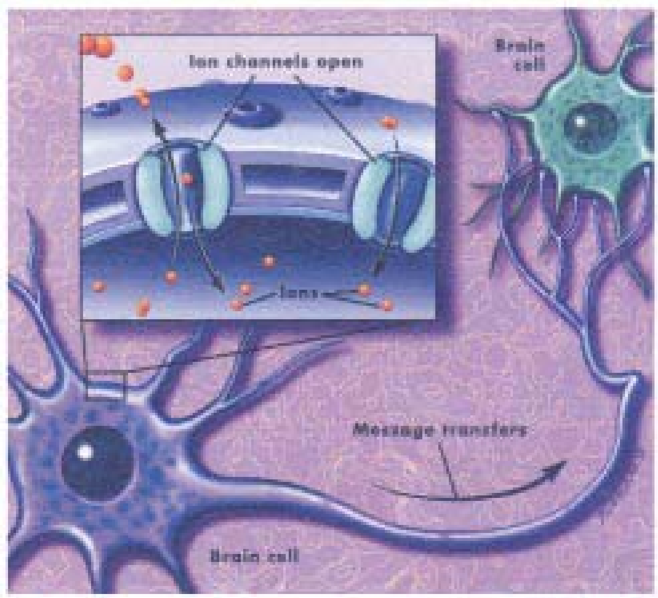
ION CHANNELS AND EPISODIC DISEASE

A man suffers bouts of muscle weakness. A young child shakes and convulses during a seizure. A woman's nemesis is blinding headaches.

On the surface these afflictions, known as periodic paralysis, epilepsy and migraine, seem to share about as much in common as Britney Spears, Mozart and The Blue Man Group. A closer look, however, reveals that they all create intermittent, or episodic, attacks in otherwise healthy individuals. Over the past decade, researchers looked even deeper. They examined the genes, which produce all of our molecular components, and found that many types of episodic disorders also share a key underlying feature—irregular ion channels. Normally, these cell pores either directly or indirectly affect cell communication. Defects in channel genes, however, sometimes produce defective channels that sabotage the communication system and set off an attack. The new findings are leading to:

- A better understanding of how ion channels maintain the function of the body and brain.
- Creative ideas on how to treat a wide array of seemingly diverse ailments.

Ion channels regulate the flow of, not surprisingly, a variety of ions in and out of cells (see illustration). These electrically charged chemical particles such as sodium, potassium and calcium are each allowed in and out of the cell's world through their designated channel passageway. Since the movement of ions is vital to cell communication and the function of the body and brain, many scientists once believed that any defects in the channels would be lethal. But then in the 1980s, studies on human muscle tissue suggested that defects in channels were behind the rare muscle disease,



▲ CELL PORES, TERMED ION CHANNELS, DEPICTED ABOVE REGULATE THE ELECTRICAL SIGNALING THAT KEEPS THE CELLS OF THE BRAIN AND BODY FUNCTIONING AND COMMUNICATING WITH ONE ANOTHER. THEY DO THIS THROUGH A COMPLEX PROCESS WHERE A CERTAIN TRIGGER, SUCH AS A CHANGE IN ELECTRICAL VOLTAGE, OPENS OR CLOSES THE CHANNELS. THIS CHANGE INFLUENCES THE FLOW OF ELECTRICALLY CHARGED CHEMICAL PARTICLES, KNOWN AS IONS, IN AND OUT OF THE CELLS. SOME CHANNELS ALLOW ION PARTICLES SUCH AS POTASSIUM TO PASS. SOME PREFER SODIUM OR CALCIUM, AMONG OTHERS. MESSAGES GO AND MESSAGES STOP. MANY RESEARCH GROUPS, HOWEVER, HAVE FOUND THAT SUBTLE IRREGULARITIES IN THE CHANNELS CAN DERAIL THE COMMUNICATION SYSTEM AND CONTRIBUTE TO A NUMBER OF DISEASES.

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periodic paralysis. In the early 1990s researchers confirmed this theory after examining the genes of patients with the disease. They found that the gene that produces a sodium ion channel was defective. Revelations of defects in other channels followed.

So far scientists have discovered that defects in ion channel genes are behind more than 30 different disorders, many of which affect the nervous system. For example, recently researchers found evidence in animals and humans that different channel defects play a major role in launching the seizures characteristic of several types of epilepsy. Investigations of humans revealed that a form of migraine headache stems from a channel defect as well. Many now believe that these defects are subtle enough to allow the cells to function under normal circumstances. The faulty channels, however, likely misstep when they encounter certain unusual factors. Environmental triggers, which are known to provoke attacks, such as a type of diet or stress, may create molecular reactions that jolt the faulty channels, resulting in communication problems and the eruption of say a seizure or headache.

As a next step, researchers plan to develop new drugs that alleviate the disorders by directly targeting the channel defects. Already, several drugs that researchers had developed prior to the channel discoveries have been found to provide some benefits through an ability to target channels. For example, popular, older antiseizure drugs block sodium ion channels, which were recently found to be defective in some forms of epilepsy. In addition, investigators are testing a drug in humans that prevents seizures by opening potassium ion channels. These channels also were found to be defective in some types of epilepsy.

Animal studies may help scientists develop even better drugs. By breeding animals that contain the genetic-based channel defects, researchers can closely study how the defective channels wreak their havoc, and then test specific ways to prevent problems. Currently, researchers are studying several rodents that suffer from seizures due to channel defects. An intense effort is underway to develop even more of these models for epilepsy as well as other episodic diseases.

Paris To Host European Neuroscience Forum

On July 13–17, 2002, the Federation of European Neuroscience Societies (FENS) will hold the Forum of European Neuroscience in Paris, hosted by the Societé des Neurosciences. Since the first Forum in Berlin in 1998 with 4,000 delegates, attendance at the meetings has been steadily growing—up to more than 5,500 delegates in Brighton in June 2000. This is a clear indication that the European Federation has succeeded in its endeavor to bring European scientists together.

Organizers hoped that the Paris conference will set a new record—more than 6,000 attendees. The meeting will be held at the Palais de Congres in Paris, located in fascinating surroundings with facilities for accommodating plenary lectures and symposia and plenty of space for posters.

The scientific program consists of 56 symposia, encompassing all neuroscience fields, and 8 plenary lectures, providing an overview of emerging topics in neurosciences. Plenary lectures will be given by E. Kandel, A.L. Benabid, T.C. Südhof, P. Somogy, F. Gage, L.G. Ungerleider, A. Aguzzi, and T. Robbins. The detailed program is available on the Web site: fens2002.bordeaux.inserm.fr.

Particular attention has been given to young neuroscientists, including PhD students and young postdocs, for whom both FENS and IBRO have provided funds. Furthermore, in order to strengthen relationships between American and European societies, a certain number of fellowships are available for young members of SFN involved in collaborative projects with European laboratories.

With the launch of the unified European currency, the 2002 FENS in Paris may strongly accelerate the process of internationalization of funding and of collaboration among countries—that is the ultimate goal of FENS and the very reason for its existence.

For further information about the 2002 Paris Forum, FENS 2003 Summer and Winter Schools, and the FENS 2004 meeting in Lisbon, check the Web site: www.FENS.org.

Human Frontier Science Program

Human Frontier Science Program (HFSP) funding has traditionally been associated with the fields of neuroscience and molecular/cell biology, which were reviewed by different review committees. With the dissolving of boundaries separating traditional biological fields and the need to involve disciplines outside biology in life science research, these separate programs have been unified into a single scientific program concerned with the complex mechanisms of living organisms. A single committee now reviews all grant applications, while a second committee reviews all long-term fellowship applications. In addition, great emphasis is placed on the involvement of scientists from disciplines such as chemistry, physics, mathematics, computer science, and engineering. The interdisciplinary nature of collaborative grant proposals is a major factor in determining funding. In the Long-Term Fellowship Program, candidates are expected to obtain training in new fields of research, and applications are especially encouraged from young scientists from the physical sciences and mathematics who wish to enter the field of biology. Through these mechanisms HFSP is poised to be at the forefront of developing the new interdisciplinary language necessary to understand biological complexity.

Applications are now being solicited for Young Investigators and Program Grants, with a deadline for letters of intent of April 3, 2002. The deadline for the fellowship program this year is September 2, 2002. The new guidelines and application forms for the next competition for Long-Term Fellowship applications will be published in April or May. More information is available on the HFSP Web site: www.hfsp.org.

IBRO Update

Prague, Czech Republic

While sharing the excitement of the scientific program of the SFN meeting in San Diego, members of the different IBRO committees took the opportunity to evaluate and plan their activities.

Following the November meetings, IBRO called for nominations to elect new members to its Regional Committees in Latin America, Africa, Central and Eastern Europe, Asia, and the Pacific. By the time nominations closed in the four regions, all of the societies in all of the entitled countries had made their nominations.

The organizers of next year's Sixth IBRO Congress in Prague have received proposals for 199 symposia and 70 plenary lectures. The range of topics represented in the proposals and the scientific quality and geographical distribution of the proposed speakers and lecturers indicate that the Congress will provide a truly exciting scientific program.

There has been a significant growth in programs and projects introduced by IBRO over the past two years, accessed via the Web site and aimed at providing Internet-based tools for teaching and learning ("IBRO-Edu"), information on sources of support for research and travel ("Neuro-grants Info"), as well as useful links to journals and scientific organizations ("Links"). The success of these programs owes much to the support provided by the IBRO membership. They, too, have helped attract the interest of a worldwide readership now averaging 12,000–15,000 hits daily with peaks that have risen to 30,000–50,000 hits in a single day! Additional information on these and other issues, including activities in San Diego, can be found on the IBRO Web site www.ibro.org.

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Fellowships and Awards—Call for Submissions

Annual Society for Neuroscience Young Investigator Award

SFN announces the Call for Nominations for the Society for Neuroscience Young Investigator Award (YIA). The $5,000 prize is awarded each year at the Society's Annual Meeting to an outstanding neuroscientist who has received an advanced professional degree within the past 10 years. It is essential that the nomination information include the precise date the candidate received the advanced degree. Nomination packages for the 2002 Young Investigator Award should be submitted to S. Sunshine, Society for Neuroscience, 11 Dupont Circle, NW, Suite 500, Washington, DC 20036. Deadline for Receipt of Nomination Packages: Monday, June 3, 2002.

Nomination packages should include seven copies of each of the following:

- Letter of recommendation, which must include the candidate's name and the exact date on which the advanced professional degree was awarded, and a detailed description of the scientific contributions of the nominee
- Curriculum vitae

The nominations must be made or endorsed by an SFN member; however, nominees need not be members of the Society. Because of potential conflict of interest issues, members of the Award Committee cannot serve as nominators nor should they write letters of support.

All material will be reviewed by the YIA Selection Committee, the members of which are established neuroscientists. The Selection Committee will make the final selection. The recipient of the award will be notified in the summer, and the prize will be presented preceding The Grass Foundation Lecture at the Society's 2002 Annual Meeting in Orlando, Florida.

Minority Neuroscience Fellowship Program

Recipients of the Society training fellowship program for pre- and postdoctoral minority neuroscientists will be announced in May. Through a grant from the National Institute of Mental Health, our Minority Neuroscience Fellowship Program (MNFP) provides fellows with the following benefits: training stipends in accordance with National Research Service Award guidelines, travel assistance, and registration to attend the SFN Annual Meeting. In addition to SFN member resources, fellows receive funds to participate in training activities outside of their home laboratory and will be matched with a mentor from the SFN membership.

Minority Travel Fellowship Program

SFN, through a grant from the National Institute of Neurological Disorders and Stroke, offers travel fellowships to pre- and postdoctoral minority neuroscientists to participate in SFN's Annual Meeting for three consecutive years. In addition, this program provides funds to participate in external enrichment activities outside the fellow's home laboratory, complimentary SFN membership benefits, guidance at the Society's Annual Meeting and year-round through individual mentors, and the chance to meet with one or more senior neuroscientists of their choice during the Annual Meeting. Deadline for receipt of completed application packages is Monday, June 3, 2002. For additional information, please visit our Web site at www.sfn.org/awards.

FUN Marks 10th Anniversary with First Career Achievement Award, Travel Awards

The Faculty for Undergraduate Neuroscience (FUN) celebrated its 10th anniversary in grand style during the 2001 SFN meeting in San Diego, California. After a brief program commemorating the anniversary, a new outstanding neuroscientist awards program was announced. Outstanding neuroscientists involved in undergraduate neuroscience education are eligible for nomination for the FUN Educator of the Year Award; individuals who have made outstanding contributions to undergraduate neuroscience education and research on a career or lifetime basis may be nominated for FUN's highest honor, the FUN Career Achievement Award. The first recipient of the FUN Career Achievement Award was Julio Ramirez of Davidson College, who was honored at the 2001 social for his enduring commitment to undergraduate neuroscience education and research.

As in recent years, FUN invited all undergraduates presenting posters at the SFN meeting to display their posters at FUN's annual social. This annual event provides an excellent mechanism for recognizing the efforts of all the undergraduate students in attendance at the Annual Meeting. At the social, FUN presented travel awards to eight outstanding undergraduate researchers. See www.undergraduateneuroscience.org for listing. All awards were funded by FUN membership dues and by contributions from FUN supporters.

FUN is an international organization dedicated to supporting research and education in neuroscience at the undergraduate level. Individuals interested in membership are encouraged to join FUN, to nominate deserving students for the travel award and deserving faculty for recognition, and to become involved in the activities of the Society. For information, visit the Society Web site at http://funfaculty.org or contact the current president of FUN: Eric Wiertelak, Dept. of Psychology, Macalester College, St. Paul, MN 55105. E-mail: wiertelak@macalester.edu.

FUN Undergraduate Travel Awards: Call for Nominations

Since 1992, the Faculty for Undergraduate Neuroscience has provided travel funding to undergraduate students presenting research at the Annual Meeting of the Society for Neuroscience. Nominations are sought for the 2002 awards. Interested students or mentors should consult FUN's Web site http://funfaculty.org for details concerning eligibility and the nomination procedure. Note that the deadline for nominations is May 15, 2002, substantially earlier than in previous years. Winners will be notified by mail.

Chapters/Eli Lilly Graduate Student Awards

SFN Chapters/Eli Lilly Graduate Student Travel Award Program 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. The deadline for nominations from chapters is Monday, June 3, 2002. Additional information is available on the Society's Web site at www.sfn.org/awards..

McKnight Neuroscience of Brain Disorders Award

The McKnight Endowment Fund for Neuroscience supports innovative research designed to bring science closer to the day when diseases of the brain and behavior can be accurately diagnosed, prevented, and treated. To this end, the McKnight Neuroscience of Brain Disorders Award assists scientists working to apply the knowledge achieved through basic research to human brain injury or disease. Up to six awards are made annually, each providing $100,000 per year for three years. Investigators who are conducting research at institutions in the United States are invited to apply.

Application Process

To apply, submit a two-page letter of intent, addressing the following questions: (1) What clinical problem are you addressing? (2) What are your specific aims? (3) How will the knowledge and experience you have gained in basic research be applied to improving the understanding of a brain disorder or disease? The letter should clearly describe how the proposed research will uncover mechanisms of brain injury or disease and how it will translate to diagnosis, prevention, treatment, or cure. The deadline is May 1, 2002. Selection Committee members are: Larry Squire, chair, Samuel Barondes, Fred Gage, Charles Gilbert, Jeremy Nathans, Eric Nestler, and Carla Shatz.

Send letters of intent to the following address: McKnight Neuroscience of Brain Disorders Award, The McKnight Endowment Fund for Neuroscience, 600 TCF Tower, 121 South 8th Street, Minneapolis, MN 55402. For more information, visit www.mcknight.org/neuroscience/brain/index. asp.

Women in Neuroscience

Eli Lilly Student Travel Awards

Women in Neuroscience (WIN) presented travel awards to 11 students at the WIN Awards Ceremony during the SFN 31st Annual Meeting in San Diego. The awards were funded in part by the generous support of Eli Lilly and Company. This is the 15th year that the corporation has partnered with WIN to help young investigators participate in the annual SFN meeting. The awardees were selected from 182 applicants. Awards were based on the scientific quality of the applicants' SFN abstract, vitae, a letter of recommendation from their advisor, and financial need. Applicants were also required to submit an essay on the issue of barriers to women in science. Young scientists from five countries—Australia, Canada, Spain, the United Kingdom, and the United States—were represented in the group. Each awardee received free attendance at the WIN Career Development Workshop on negotiation and $750 toward the cost of travel to the SFN Annual Meeting. The list of winners, along with their abstracts and essays and names of those who reviewed the applications, can be found on the WIN Web page at www.womeninneuroscience.org.

WIN Achievements Awards

Women in Neuroscience (WIN) presented three Neuroscience Achievement Awards at the WIN Awards Ceremony during the SFN 31st Annual Meeting in San Diego. This year, the Society for Neuroscience co-sponsored the event. The awards are given based on sustained exceptional achievements in neuroscience, service to the profession, attained recognition at national or international levels as a scientist, educator, businessperson, or administrator in neuroscience, and demonstration of a high degree of imagination, innovation, and initiative in the pursuit of neuroscience, as well as an unusual dedication to facilitating the entry and mentoring of young women into neuroscience or the advancement of women in neuroscience.

The Mika Salpeter Lifetime Achievement Award WINner was Dr. Leslie Ungerlieder, from NIMH. Dr. Mariam (Mika) Salpeter, for whom the WIN lifetime achievement award is named, was the recipient of the Hall of Honor Award. Dr. Louise Hanson Marshall was the recipient of the WIN Special Recognition Award for distinguished service. The Awards Committee included Kristen Harris, Mary Bartlett Bunge, Joseph Coyle, Donald Price, Susan McConnell, Peter MacLeish, Gina Turrigiano, and Andrea M. Zardetto-Smith, past president of WIN. Biographies of the award winners and information on the awards can be found on the WIN Web page.

Career Development Workshop

Women in Neuroscience (WIN) and the Society for Neuroscience co-sponsored the 2001 Career Development Workshop. The workshop titled "The Art and Skill of Negotiation" was organized by Joan C. King, PhD, and Kathryn Sandberg, PhD, in cooperation with the Harvard Negotiation Project. The workshop was based on a negotiation workshop previously offered at the Harvard Law School–Program of Instruction for Lawyers Fall 2000 by Roger Fisher and William Ury. Participants of the workshop who pre-registered also received the book Getting to Yes: Negotiating Agreement Without Giving In by Roger Fisher and William Ury for the Second Edition, Bruce Patton of the Harvard Negotiation Project. Wyeth Ayerst donated $1,500 to support the WIN workshop.

Drs. King and Sandberg recruited 12 skilled negotiators for the workshop. Participants, 136 men and women at all career levels, learned the basic principles of negotiation and were encouraged to practice negotiating in many contexts. After individual group negotiations, participants were able to ask specific questions to the entire panel of 12 negotiators.

Due to the popularity of the workshop, WIN and SFN will continue the theme of negotiation at SFN's Orlando meeting.

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Death of David Ottoson, Former Secretary-General of IBRO

David Ottoson, the Secretary-General of the International Brain Research Organization (IBRO) between 1983 and 1997, and a true ambassador for world neuroscience, died in Stockholm, Sweden, on December 27, 2001.

During the 14 years of Ottoson's appointment as Secretary-General, IBRO experienced tremendous growth and development, due largely to his perception, enthusiasm, and personal commitment. The organization was transformed from a small body of 2,000 members into an international scientific organization of more than 50,000 members.

Ottoson saw IBRO's principal role as the promotion of brain research in developing countries, and he oversaw IBRO's encouragement and creation of regional federations such as Caribbean Brain Research Organization, Euro-Asian Commission of IBRO, Federation of Asian-Oceanian Neuroscience, South American Brain Research Organization, and Society of Neuroscientists of Africa.

In a letter to the membership on the eve of his retirement as Secretary-General, Ottoson described IBRO as a "success story." This success was in no small way due to his dedication and determination in the role he played for IBRO. For this legacy the IBRO membership is truly grateful.

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representatives, clinical researchers, Institutional Review Board (IRB) members, and bioethicists from throughout the nation. The overall purpose of the project is to set standards and improve the clinical research system and to more strongly focus on the ethical aspect, not only for funding agencies and human participants, but also for society at large.

The protection of human research subjects has come under recent criticism, with the deaths of several research participants over the last few years. Specifically, issues relating to conflict of interest, IRB functioning, and selected reporting of adverse events, such as drug reactions, are those areas of concern that have arisen as of late. Thus, to address these issues, the main focus of the consortium is to evaluate approximately 20 research centers, and to create a database on the current characteristics of clinical research, such as the number and type of clinical trials, the number of participants, and the costs of IRB review and oversight, as well as the funding source for the research.

Yet another goal of the CECRE is to develop a system for determining which research projects may require more attention, due to the sensitive nature, as it may involve an at-risk population. It is also important for CECRE to evaluate current patient protection and see whether new methods are needed. In addition, the ethical side of clinical research has concentrated on informed consent and IRB minutes and approval, but less on evidence-based outcome data.

NIH continued from page 3

Visual system studies are rapidly advancing toward the fundamental goal of neuroscience: to understand the linkage between the molecular activity of nerve cells and the behavior of an entire system. Elegant experiments are underway to combine imaging technologies with knowledge of molecular expression of gene products in awake animals while they perform visually related behavioral tasks. Future vision research, coupled with emerging technologies, holds great promise for understanding visual function at a systems level in both health and disease. Simply put, the mission of NEI is to protect and improve the nation's visual health through the support of the highest quality laboratory and clinical research aimed at increasing our understanding of the eye and visual system. Inherent in this mission is the investigation of normal tissue and visual processes so that we may gain a better understanding of the abnormal processes that lead to disease. To accomplish this mission, we need the best that the neuroscience community has to offer.

Future vision research, coupled with emerging technologies, holds great promise for understanding visual function at a systems level in both health and disease.

For More Information

Our Web site (www.nei.nih.gov) provides information on a range of basic and clinical funding initiatives. Of particular interest to neuroscience are calls for innovative pilot projects of high impact that would provide a foundation for important new vision research, and for collaborative development of novel therapies to prevent loss and restore function as a result of visual diseases and disorders. We look forward to cross-fertilizing visual sciences further with ideas and advances from other neuroscience areas. A future of research progress lies ahead, but we need to share your interests and ideas to get there.

First Annual Meeting of Oregon Chapter a Huge Success

Nearly a year ago, more than 150 individuals attended the first Annual Meeting of the Oregon Chapter, including senior scientists and postdoctoral, graduate, and undergraduate students. Attendees from Oregon Health and Science University, University of Oregon, and Oregon State University gathered for a day of presentations and discussion. The event was kicked off with an inspirational presentation by guest speaker Dr. A.J. Hudspeth. The diversity of research in the Pacific Northwest was represented by Drs. S. Lockery, F.L. Moore, and S. Amara. In addition, two poster sessions were dedicated to the presentation of fifty-six posters, and awards for top posters went to D. Hazelett, J. Kluzic, J. Smart, and H.J. Song. The day ended with a panel discussion chaired by D. Heil, host of public television's "Newton's Apple," addressing the need for public outreach. The next meeting is planned for May 11–12, 2002. For additional information, contact Bobby Heagerty: heagerty@ohsu.edu.

Eli Lilly To Sponsor 2002 Graduate Student Travel Awards

The Society for Neuroscience thanks Eli Lilly and Company for supporting the 2002 Chapters Graduate Student Travel Award Program. This is the second year Eli Lilly has generously agreed to sponsor this program, which supports graduate student travel to the Annual Meeting by providing registration fees and a cash award to help offset travel expenses. For more information, please see the call for applications on page 21.

Northern Rocky Mountain Chapter Web Casts Grass Lecture

Be sure to check out the Northern Rocky Mountain Chapter's Grass lecture, "Stress, Neurodegeneration and Individual Differences," delivered by Dr. Robert Sapolsky. The lecture is available on streaming video at http://experience.wsu.edu/scholarvids/vcaap.ram. For a listing of scheduled Grass lectures, please visit the new chapters Web page at www.sfn.org/content/Programs/Chapters2/ChapterInformation.htm. The Northern Rocky Mountain Chapter thanks The Grass Foundation for their sponsorship and each of the lecturers, host institutions, and participants for taking part in this successful program.

New Chapter Established in Colorado

Congratulations to the most recently chartered chapter of the Society, The Front Range Neuroscience Network. Anyone interested in participating in this chapter's activities should contact F. Edward Dudek, PhD (ed.dudek@colostate.edu). Society members are encouraged to join their local chapter or to establish a new one if no chapter exists in their area. Contact Chapters and Special Projects Director Greg Willoughby for more information about how you can get involved. Phone: 202-462-6688, Fax: 202-462-9740, E-mail: greg@sfn.org.

SFN Welcomes New Chapter Representatives

The Society welcomes the following new chapter representatives: Kelly Drew, PhD, Alaska Chapter; Gerald Dienel, PhD, Arkansas Chapter and Jerrold Meyer, PhD, Five College Chapter. Our thanks to all SFN chapter leaders for their role in representing the grassroots interests of the neuroscience community.

Let Us Know About Your Chapter

The Chapters are an important grassroots extension of the Society for Neuroscience. To submit chapter news for future issues or to update the Society on new chapter leadership, contact Greg Willoughby, Chapters and Special Projects Director (greg@sfn.org), at 202-462-6688 or visit our Web site at www.sfn.org/chaps.

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