"Along with the field's expansion, SfN as an organization has come of age as well, maturing into a major scientific, professional, and advocacy force in the community of scientific societies."

– SfN President Thomas J. Carew (see page 2)

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SfN Professional Development and Higher Education: Evolving to Meet Changing Member Needs

In response to expressed member needs, SfN professional development programming and governance structures are evolving to better serve a growing and increasingly diverse membership. The SfN Council established new and revised strategies and committees to strengthen, enhance, and better coordinate professional development and higher education activities. These areas of activity fall under the umbrella of the renamed Higher Education and Professional Development Cluster, which is comprised of two new committees, Professional Development Committee and Committee on Neuroscience Departments and Programs, and a repurposed International Affairs Committee.

These changes expand SfN's mission and are designed to strengthen existing programs, while building on their successes to achieve a broader set of priority goals that address member needs. Among other things, they reflect an increasingly international and younger SfN membership that has been asking for more professional development opportunities. Overall, SfN is committed to supporting the neuroscience community through all career stages, connecting people across specialties and around the globe.

Continued on page 10. . .

SfN Announces Election 2009 Results

The SfN membership has elected Susan Amara, University of Pittsburgh, as the incoming president-elect, and Donald Faber, Albert Einstein College of Medicine, as the incoming treasurer-elect. The Society congratulates its newly elected officers. Chosen by members using an independently run online election, the incoming officers begin their terms at Neuroscience 2009 in Chicago.

Susan Amara is the Thomas Detre Professor and Chair of the Department of Neurobiology at the University of Pittsburgh School of Medicine, as well as the Co-Director of the Center for Neuroscience at the University of Pittsburgh. Her involvement at the Society spans more than 20 years and includes serving as a councilor, treasurer, and member of many SfN committees and working groups. Her research primarily focuses on the molecular and cellular biology of membrane transporters.

Donald Faber is the Florence and Irving Rubinstein Chair of the Department of Neuroscience at Albert Einstein College of Medicine, as well as the Director of the Rose F. Kennedy Center for Research in Mental Retardation and Developmental Disabilities. At SfN, he is currently serving on the Audit Committee and has previously been a member of the Finance and Membership Committees. His research focuses on the regulation and plasticity of synaptic transmission and the functional organization of microcircuits in the vertebrate brain, in the context of the behaviors they mediate.

Message from the President Coming of Age



Forty years ago this month, when 14 leading scientists approved and signed the articles of incorporation of a fledgling Society for Neuroscience, they were squarely focused on the future — giving definition, support, and energy to an emerging field. In 2009, more than 38,000 SfN members worldwide still see a future of neuroscience that remains filled with promise. As will be evident at

this year's SfN annual meeting in Chicago, the future of neuroscience is constrained only by the technology we have yet to develop and deploy, the hypotheses we have yet to generate, the global collaborations we have yet to form, and perhaps most importantly, by the limits of our imagination.

Along with the field's expansion, SfN as an organization has come of age as well, maturing into a major scientific, professional, and advocacy force in the community of scientific societies. It is striking to reflect on what we collectively have built these past 40 years. As an organization, SfN began as the scientific equivalent of a mom-and-pop store. Now, 40 years later, a little less than a mile from the White House, on 14th Street in Washington, DC, we are no longer that mom-and-pop store, but rather a well-oiled, lean, financially rigorous, and deeply dedicated machine working to advance our field on a global level. A staff of more than 80 professionals works there each day focused on us, the membership of SfN. They facilitate SfN's critical venues for great science, like the annual meeting and The Journal of Neuroscience. They support the neuroscience community through professional development programming and growing chapter activity. And, they advocate and educate the public tirelessly about "the universe between our ears." This strong institutional backbone is a huge structural evolution in how we do our business, and that infrastructure is crucial to ensure the next 40 years will advance with the same achievement and energy.

There is no SfN activity that better encapsulates the field's potential and the diversity of SfN activities than the annual meeting, and Neuroscience 2009 will once again be a premier venue. This year it brings us to Chicago — a great city with a history of great science and home to a magnificent conference facility that regularly hosts some of the world's largest events. In addition, the city's nightlife includes fantastic food and great blues and jazz. In a year when science celebrates the anniversary of Charles Darwin's 100th birthday, it is fitting that in SfN's evolution we are headed somewhere new and we are celebrating in a

city known for magnificent natural history exhibits at the Field Museum.

The meeting also creates a chance to highlight 40 years of progress in our field and point to the future. I have tried through my Presidential Special Lecture series to capture this progress with its theme "A changing brain in a changing world." In this series, I sought to identify ways to speak to the field's growth and development, echoing how the brain grows, develops, and adapts to its environment. The series will begin with Liz Spelke, who will discuss how cognition develops, but more specifically, how the brain organizes and synthesizes abstract knowledge. Second, at the systems level, Richard Morris will unravel some of the mysteries of the brain by exploring the different but interlocking neural mechanisms of memory. On a third level, Nora Volkow will explore how the brain's normal adaptive mechanisms go awry and get hijacked by the crushing effects of addiction. Finally, Nobel Prize recipient Eric Kandel will close by discussing the changing brain from the perspective of the phenomenal advances in the molecular architecture of both normal and abnormal memory.

It is my hope that addressing the brain's response to an ever-changing world at these four levels offers an exciting way to explore the complexity of the brain while speaking to the entire SfN community — from those of us who study the consequences of social impact and neuroethics to those of us who examine a single synapse and the molecular universe within a single neuron. The exciting thing about our field, writ large, is that each level informs the others. Thus, one plus one is often *much more than* two when we have all of these different levels interacting and guiding inquiry at other levels as well.

The Chicago meeting also continues to capture the Society's evolution as a key public broker for scientific discovery. Toward that end, we have added a new mechanism to engage the public: We are trying a new experiment with a "public symposium" format, which this year will focus on Darwin and evolution. This is particularly timely not only because of Darwin's anniversary, but also because the Society continues to adapt and experiment with new ways to reach the public. SfN feels a deep obligation to open doors between the scientific community and the public, and this public symposium offers an important vehicle to address significant issues in a public venue.

Another aspect of the Chicago meeting that I am particularly excited about is this year's Dialogues presentation — Magic, the Brain, and the Mind — which also reflects our meeting's

evolution. The idea of the Dialogues Between Neuroscience and Society is only five years old and thus a relatively new, but highly successful effort to enlighten and inform us all about the connections between our field and the larger human experience. In this year's series, three prominent magicians, James "the Amazing" Randi, Apollo Robbins and Eric Mead, will engage in a collective dialogue with us. Each magician has his own unique style, but there are also significant commonalities — they share a fascination with how the brain works to implement the mental functions that underlie their craft. Each is also a significant scholar in his discipline and truly enjoys contact with other fields, such as neuroscience. This Dialogue is much more than "rabbit from a hat" magic. It will bring together different domains of a craft that has mystified us for centuries and broaden how we think about the brain and human perception, and, at a more general level, how science and society intersect in diverse and stimulating ways.

Another aspect of the Chicago meeting reflects how the Society's functions have continued to adapt and grow. From professional development to public education to press coverage, we are increasing our reach, using new tools, and looking for novel and innovative opportunities. For professional development, our Meet-the-Experts series continues to grow and expand in popularity. Our press conferences were once tailored almost exclusively to print journalists. Today, many credentialed outlets blog daily from the meeting and SfN makes press conferences available to reporters remotely. The program also will offer tips and tricks for engaging the public

through Wikipedia, and attendees will again "tweet" from the convention center, sharing with each other the coolest poster or the newest discovery. This year, we also have added on-site child care as an option for scientist-parents.

Finally, our changing SfN is reflected in the changing makeup of our annual meeting attendance. Like our growing international membership, about a third of the meeting attendees come from beyond U.S. shores. The halls are brimming with younger and more diverse members, a strong and encouraging sign of our discipline's vibrancy, and its role in blazing the trail in the next scientific frontiers. It is tremendously encouraging to look around the annual meeting halls and know this young generation will not follow, but lead us in imaginative ways to both advance exciting new neuroscience and to effectively communicate it. These younger members are increasingly "professionally multilingual" — fluent in fields as diverse as engineering, biology, psychology, computational science, chemistry, physics, and genetics — thereby strengthening the breadth and depth of our field.

I have tried to use the Chicago meeting as a proxy for the strength and potential of our science and our Society, capturing a sense of the bright future that continues to unfold. At the same time, I am keenly aware the meeting represents a single snapshot in time that conveys a sample of the coming of age of our field. Nonetheless, as snapshots go, it's pretty compelling, and holds great promise for an exciting meeting in an exciting city. We look forward to seeing you there!

Council Round-Up: Spring 2009

The SfN Council, the Society's governing body, met May 26-27 in Washington, DC, for their annual spring meeting. Council addressed a number of business-related issues, while spending a large portion of the meeting focused on Society strategies related to professional development and international affairs. The article "SfN Professional Development and Higher Education: Evolving to Meet Changing Member Needs" provides more information on these issues (see pg. 1). The following summaries highlight other areas of discussion.

APPROVAL OF THE FY2010 SfN BUDGET

In financially uncertain times, SfN continues to chart a strong course rooted in fiscally sound budgeting, an emphasis on core functions, and selective growth that advances key memberidentified priorities and SfN's mission. Drawing on multi-year data trends, Council approved a budget that includes moderate growth of membership, annual meeting exhibits, and subscription bases. However, Council is aware of the significant economic challenges confronting the scientific and academic communities. In that light, SfN's leadership oversaw a strate-

gic prioritizing of programmatic activities, and reviewed and approved a conservative 3 percent increase in expenses in the FY2010 Operating Budget for the Society. This will enable SfN to continue to serve its membership in increasingly robust ways while being ever more efficient and effective in carrying out core functions.

ETHICS POLICY DISCUSSION

The Responsible Conduct Working Group, chaired by SfN Past President David Van Essen, presented Council with draft revisions to the SfN Ethics Policy and Guidelines on Responsible Conduct Regarding Scientific Communication. The original policy and guidelines were developed primarily to address writing, reviewing, and editing of peer-reviewed manuscripts; submission of abstracts to scientific meetings; and presentations to the lay public. The current versions are available under "policies and guidelines" on SfN's Web site.

Formed in 2008, the current working group's goal is to evaluate and potentially modify existing SfN policies, which were

Hill Day Urges Support for Bold Science Funding

Nearly 40 SfN members contributed to the success of the third annual SfN Capitol Hill Day on April 22. Participants from 18 states and 4 countries met with more than 60 congressional offices to thank legislators for the historic science investment in the stimulus bill and the strong demonstration of confidence in science as an economic engine.

Capitol Hill Day kicked off on April 21 at the National Press Club with dinner and remarks from Dr. Alan Leshner, Chief Executive Officer of the American Association for the Advancement of Science and Executive Publisher of the journal *Science*. Dr. Leshner shared his belief that neuroscience is among the leading issues in this exciting age of science. Moreover, he tasked the neuroscience community with taking this opportunity to educate the public, stressing the importance of science and science education as a necessity in our society as well as a powerful tool of diplomacy.

The next morning, Hill Day participants gathered at a breakfast briefing where SfN President-Elect Mickey Goldberg rallied the troops and urged members to see Hill Day as the start to a long life of activism and advocacy on behalf of groundbreaking research. Goldberg asked participants to share their Hill Day experience with chapters back home and to illustrate the importance of science advocacy.

Participants spent the rest of the day visiting the offices of their Senators and Representatives, thanking legislators and staff for their commitment to science funding in the American Reinvestment and Recovery Act (ARRA). SfN



SfN Chapter members from Pennsylvania, Texas, and Massachusetts pose in front of the U.S. Capitol between Hill visits.

members also urged at least 10 percent increase in science funding in FY2010 and FY2011 to sustain the scientific and economic momentum spurred by the stimulus. With Congress currently drafting FY2010 spending legislation, the SfN participants played an early role in advocating for robust research funding.



SfN North Carolina chapter members Dwane Godwin and David Friedman discussed the need for a robust and reliable investment in biomedical research with their legislator, Rep. Virginia Fox (R-NC).

SHARING THE MESSAGE

Participants talked with legislators from dozens of states, including California, North Carolina, Pennsylvania, New York, Nebraska, and Ohio. The emphasis was to explain the science community's efforts to push the stimulus dollars into high quality research that will advance science while preserving and creating jobs, share their areas of research, and express excitement for the potential scientific accomplishments the stimulus could yield. Maryland SfN members, led by Potomac chapter leader Sean Manion, met with Rep. Chris Van Hollen (D-MD) and explained the true power of the stimulus — it has brought about a sea of hope in the scientific world. Specifically, in anticipation of receiving funds, Johns Hopkins University planned a job fair and thereby provided a concrete example of stimulus funds translating into a positive economic impact.

SfN members David Friedman and Dwayne Godwin met with Rep. Virginia Fox (R-NC) to discuss how stimulus funds will improve the health of her constituency, create jobs, and strengthen the economy. In addition, SfN member Marshall Shuler, a scientist at the Johns Hopkins University, spoke with an appropriations staff member who focuses on NSF about the intersections of physical and life sciences, using the emerging field of optogenetics as one

example. Shuler's example illustrated how this sub-specialty of neuroscience intersects with NSF-funded technologies.

Many members of Congress voiced strong support for science and research, and urged scientists to communicate more actively about scientific progress and what is on the horizon. In turn, many participants invited legislators to their labs to see the groundbreaking neuroscience research being conducted at institutions in their state or district. Lab visits allow legislators to see firsthand the tremendous scientific and economic advances being pursued with stimulus funds.

SPREADING THE WORD AT HOME

Participants learned the importance of staying engaged year-round on science issues, keeping in touch with legislators, and communicating this sense of responsibility with others. Dwayne Godwin, a chapter leader from Wake Forest, shared this message with the Western North Carolina chapter through an article in their newsletter. In the article, Godwin describes the SfN Hill Day as an eye-opening experience and stresses the "responsibility of those who have government funding to communicate the value of it to our representatives."



SfN Maryland chapter members David Zee and Marshall Shuler thanked Rep. Chris Van Hollen (D-MD) for supporting science funding in the America Reinvestment and Recovery Act (ARRA).

SfN's Hill Day was an important step in engaging SfN chapters in science advocacy at a critical time and for cultivating the relationships established with congressional offices during Hill Day. To get involved, contact your local chapter to learn more about their advocacy efforts. You also can join SfN's Advocacy Network to stay informed and take action as the U.S. Congress confronts the many issues that affect science and research. Visit www.sfn.org/advocacynetwork to join or for more information.

Summer Provides Opportunity For Increased Advocacy

In the face of unprecedented economic and political challenges, SfN continues to strongly advocate for robust research funding as the FY2010 appropriations season gets underway. SfN is partnering with Research! America and others in the scientific community to support an increase of at least 10 percent over FY2009 for the National Institutes of Health (NIH) and an increase of 7.9 percent over FY2009 for the National Science Foundation (NSF). These increases will help ensure that America seizes the scientific momentum created by the American Recovery and Reinvestment Act (ARRA)'s historic investment.

As SfN members learned from members of Congress and their staff on Capitol Hill Day, many leaders in Washington recognize the need for strong and robust biomedical research funding. However, today's political and economic climates have created significant fiscal challenges, as demonstrated by President Obama's detailed budget released on May 7. The current proposed budget would give NIH just a 1.4 percent increase for a total of \$30.996 billion in FY2010. In contrast, NSF would receive a 7.9 percent increase for a total of \$7 billion, which SfN strongly supports. SfN's testimony on behalf of NSF and NIH is available at www.sfn.org/gpa/news.

The budget must now make its way through congressional committees and pass both the House of Representatives and the Senate. At NQ press time, appropriations markups were scheduled throughout June and July, with final votes taking place late this summer — either just before or after August recess.

This schedule gives advocates the opportunity to make their voices heard on Capitol Hill. SfN members can express the need to maintain the scientific and economic momentum generated by the ARRA funds. SfN will alert members to the many opportunities this summer to reach out to senators and representatives. To stay updated on what's happening in Washington and become more involved, join the SfN Advocacy Network at www.sfn.org/advocacynetwork.

SfN Celebrates 40 Years of Advancing Great Science



In 1969, the signed letters of incorporation officially gave birth to the Society for Neuroscience (SfN) as a nonprofit dedicated to advancing the understanding of the brain

and nervous system. Neuroscience barely existed as a separate discipline in 1969, yet has grown to include over 300 training programs and is considered one of the most exciting areas in biomedical research.

In just 40 years, the Society has grown from 500 charter members to nearly 39,000 members, the organization's greatest strength.

CREATING UNMATCHED VENUES FOR SHARING SCIENCE

One of the Society's primary goals, to promote the exchange of information among researchers, is achieved through the Society's annual meeting, the largest source of cutting-edge neuroscience research, and through *The Journal of Neuroscience*, the top journal in the field. In an effort to promote scientific excellence, the Society hosted its first annual meeting in 1971, bringing 1,396 attendees to Washington, DC. This number rapidly grew to 15,000 by 1991. Today, the Society's annual meeting draws more than 30,000 attendees, reaching a record attendance of 34,815 in 2005.



Attendees from SfN's first annual meeting in 1971 participate in a poster session.

SfN's annual meeting is *the* arena for presenting new developments in neuroscience. By making the annual meeting a showcase of emerging neuroscience research and findings, the Society contributes to the rapid translation of research to improve health and cure disease, and to enhance the basic understanding of human behavior and cognition. This commitment is witnessed in the abstract submissions each year. In 1993, abstract submissions passed 10,000, and 2009 resulted in more than 15.800 submissions.

The Journal of Neuroscience also provides access to cuttingedge neuroscience research. SfN first published The Journal in 1981, beginning a long history in scientific writing. Maintaining the excellence and viability of *The Journal* is a key element of the Society's mission. In 1996, *The Journal* became available online, which broadened readership. The quality of contributions and the reputation of the publication encouraged SfN to begin publishing weekly in 2003. Today, *The Journal of Neuroscience* is a core element of the Society's scientific mission to promote research and education.

Supporting a Dynamic Future through Membership

Members are the backbone of SfN. The Society has consistently grown its membership base, along with programs and services offered to members. Milestones in membership demonstrate this growth: 10,000 members in 1985; 30,000 in 2002; and 35,000 in 2005.

The composition of SfN's membership has also evolved, with student and international members growing faster than any other segment and now accounting for 27 percent and 36 percent of membership, respectively. Both driving and reflecting these changes have been SfN's updates to its membership policies and governance structure, designed to facilitate greater participation by the full range of established and future neuroscientists.

To support the next generation of neuroscientists, SfN has two student categories, including an undergraduate category created in 2005. Both student categories offer reduced dues and annual meeting fees for students enrolled in degree-granting programs. In 2002, "foreign" members were fully integrated into the general membership categories. Starting in 2009, SfN offers a separate postdoctoral category with reduced dues and fees. Also, for the first time, non-North American members may now serve as councilors on SfN's governing board.

SfN Celebrates 40th Anniversary

In addition to an anniversary logo, which will be featured on the 2009 annual meeting t-shirt, *The Journal of Neuroscience* will feature reflections by leading neuroscientists in the annual meeting issue.

Eric Kandel — Molecular Basis of Memory

Carol Mason — Development

Marcus Raichle — Functional Imaging

Solomon Snyder — Transmitters, Receptors,

Second Messengers

Larry Squire — Learning and Memory Systems

Anne Young — Degenerative Diseases

LEARN MORE ABOUT THE HISTORY OF NEUROSCIENCE

Visit www.sfn.org for videos, reflections on the founding of SfN, comments from key neuroscientists, and more.

History of Neuroscience in Autobiography Facts:

- First videos published: 1994
- First book volume published: 1996
- Videos and books available free online: 2008

The past 40 years also has seen impressive growth in the number and engagement of regional and local SfN chapters. SfN's incorporators and first councilors clearly saw chapters as a potential outreach resource to help members network, share information, and educate the public about neuroscience at the local level. Today, SfN has more than 130 established chapters in the United States and in 16 countries worldwide that are increasingly engaging to further the SfN mission.

PROMOTING PROFESSIONAL DEVELOPMENT

Meeting the professional development needs of its members has always been a vital part of SfN's mission. The Society has expanded and enhanced its professional development programs and activities over the years to support the changing needs of members throughout their careers. Fellowships are available for underrepresented minority trainees, travel and career awards are available to support early-career neuroscientists, and mentoring and training programs benefit all. In 2008, SfN recognized nearly 200 individuals in the form of fellowships, travel awards, and scientific achievement awards and prizes.

Professional development offerings at the annual meeting have expanded to include four day-long scientific courses and workshops, and this year, nine workshops on a wide range of career development topics. In 2005, SfN introduced the "Meet-the-Experts" series, which has grown from three experts to eight in 2009, offering greater opportunities for early-career professionals to learn from experienced neuroscientists. Also launched in 2005 was the annual meeting mentoring program and NeuroJobs, SfN's online job bank, which currently serves over 5,000 neuroscience job seekers.

As the Society becomes increasingly global, SfN is strengthening partnerships with international organizations to better meet the needs of its international members, while working to further enhance professional programming for all its members.

ENGAGING THE PUBLIC

Beyond the annual meeting and *The Journal*, SfN promotes research and educates the public about the wonders

of the brain, while advocating public policies that do the same. In the process, SfN relies on and encourages members to engage in public outreach — members who take part in SfN advocacy and educational programs promote neuroscience's potential as one of this century's most promising fields.

Following the 1996 launch of Brain Awareness Week (BAW) by the Dana Alliance for Brain Initiatives, SfN engaged its members in this effort to raise public awareness about the brain and encourage involvement in outreach activities. The Brain Awareness campaign started as a modest effort involving 160 U.S. organizations and has grown into a powerful international initiative with more than 2,400 partner organizations and institutions in 76 countries. As annual participants of BAW activities, SfN chapters provide members with opportunities to fuse neuroscience outreach and public education.



2006 Ribbon-Cutting Ceremony — Cutting the ribbon is then SfN President Stephen Heinemann (2005-2006) and SfN's first president Edward Perl (1969-1970).

The Society promotes public education by providing K-12 teachers with the resources to inspire the next generation of scientists. SfN first published *Brain Facts*, a 74-page primer on the brain and nervous system, in 1990, and the latest edition, currently being translated into multiple languages, is now available online at www.sfn.org. The Society's popular lay-language series, *Brain Briefings* and *Brain Research Success Stories*, began distribution in 1994 and 2004, respectively, and are sent to educators and the public with news of important neuroscience advances. *Neuroscience Education Resources Virtual Encycloportal* (NERVE), which debuted in 2008, offers K-12 educators easy access to hundreds of online educational resources about neuroscience.

In 2008, SfN's newest educational resource, *Neuroscience* Core Concepts, was released featuring fundamental princi-

Q&A: New Director of NIEHS Discusses Priorities



Linda Birnbaum, PhD, new director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP), oversees an \$850 million budget that funds multidisciplinary biomedical research programs, prevention, and intervention efforts that encompass training, education, technology transfer, and community outreach. The NIEHS supports more

than 1,240 research grants and is part of the National Institutes of Health (NIH). For more information about the NIEHS and the NTP, visit www.niehs.nih.gov.

NQ: What are some of your early priorities?

First, let me say how thrilled I am to be back at NIH. I have always viewed NIH as the world's premier biomedical research institution and the NIEHS as the environmental research jewel of the NIH. I'm especially pleased to be serving as the Director of both the NIEHS and the National Toxicology Program during a time when health and the environment are top priorities for our country.

One of my first priorities is to fill some key leadership and scientific positions at the Institute. We are in the process of conducting broad national searches, so I encourage those of you who may be interested in working in the environmental health arena to keep an eye open for those announcements.

Another one of my priorities is to establish or reestablish links with others involved in environmental research and public health efforts. We will work to restore or foster new relationships with other NIH institutes, federal agencies such as CDC, EPA, FDA, and the Department of Energy, universities, community and advocacy groups, professional societies such as the Society for Neuroscience, members of congress, the media, the general public, and other stakeholders.

NQ: As a toxicologist, what are your chief concerns (re: environmental agents that affect the brain)?

We have established the importance of examining the developing nervous system, but we know very little about the impact that environmental agents have on the more mature and aging brain.

As a toxicologist, I am very interested in learning more about how exposure to environmental agents may change the underlying vulnerability of the nervous system and how these agents can influence disease, physical injury, as well as to understand the role of secondary exposure to toxic agents. We need to learn more about how acute and chronic exposures impact disease progression, especially in light of some new data suggesting the human neurodegenerative diseases involve a series of acute microevents—repetitive injury.

Finally, I'm very interested in learning more about the role that endocrine disrupters play in neurological development and brain and behavioral functioning.

NQ: NIEHS has an important role to play in supporting research linking environmental factors with brain disorders. Will you grow the neuroscience portfolio within NIEHS?

Scientists have made tremendous progress in understanding how the brain works, and are gaining new insight into the role that environmental exposures may play in the development of brain disorders. Research funded by the National Institute of Environmental Health Sciences (NIEHS) has clearly shown that it is not just genetics that impacts the development of diseases, but the interaction of genes and the environment. For example, three of the most frequent neurodegenerative diseases, Alzheimer's, Parkinson's and Gehrig's disease (ALS) all show less than five percent concordance between monozygotic twins, implicating environmental factors in their onset and progression.

The NIEHS has a long tradition of supporting research in the neuroscience arena. Our commitment to neuroscience-related research has more than tripled in the last decade, from about \$28 million in FY 1997 to approximately \$91 million in FY 2008. We will continue our investment as the need to answer pressing questions about how neuro-toxicants, such as pesticides and other chemicals, impact the development and progression of neurodevelopmental disorders and as we look into the causes of autism spectrum disorders, Parkinson's and others.

NIEHS is also taking a lead role within the NIH in the \$60 million American Recovery and Reinvestment Act (ARRA) support for autism research.

Additionally, NIEHS scientists continue to make progress in tackling hard questions about the vulnerability of the developing brain as they look at timing and amount of environmental exposures, including low-dose exposures, in utero and during childhood, to unravel some of the myster-

ies of impaired neurodevelopment. For example, researchers in the NIEHS Laboratory of Neurobiology in our Environmental Biology Program are using electrophysiology, fluorescence imaging, and molecular genetics to study the basic cellular and molecular mechanisms of neuronal signaling, which make developing and aging brains so susceptible to disruption by environmental exposures.

NIEHS researchers are also focusing on ion channel proteins, glutamatergic and cholinergic synapses, and calcium and G protein signaling in the mouse nervous system, particularly the hippocampus. These studies have contributed to our understanding of thyroid hormone function, which is essential for human brain development, alcohol and nicotine action on the brain, the neurotoxicity of immune system suppressants, and to the mechanisms of neuronal plasticity that are essential for learning and memory. We see our research as being directly relevant to several neurological disorders including ADHD, autism, bipolar disorder, schizophrenia, Alzheimer's and Parkinson's diseases.

NQ: One of your early decisions was to support an intramural clinical research program. Will this program include studies of the nervous system?

We are very fortunate to be opening a new 14,000 square foot Clinical Research Unit (CRU) facility a few yards away from our main NIEHS laboratories in Research Triangle Park, NC. This new unit will broaden the NIEHS research portfolio by translating laboratory science into applications that can be used to improve human health and prevent disease. NIEHS scientists will be able to conduct studies that involve on-site human sample collection,

analysis and functional assessment. The CRU will also allow us to offer advanced training opportunities for students and postdoctoral fellows.

Initial studies at the CRU will not specifically address the nervous system, but we do have some ongoing collaboration with clinicians at nearby UNC Chapel Hill and Duke University to support magnetic resonance imaging studies, for example, if we decide to do that. Given the proximity of these world class clinical programs, it is cost effective to form collaborations to do neuroimaging studies. In the long run, we would like to recruit a tenure-track investigator in our intramural program who is a neurologist.

NQ: You have been vocal about increasing efforts to help junior scientists, particularly women, along their career paths. Will NIEHS support new programs to support junior scientists?

NIEHS has a strong tradition of working with emerging scientific leaders, both women and men. When I took this new position, I was pleased to learn that every year post-docs vote NIEHS as one of the top ten places to work in the country! My goal is to keep that trend and to improve on it. One area of particular interest for me is to ensure that we produce not only top quality scientists, but that we also prepare them as leaders. This is important for both women and men, but I have to say that in my view women have fewer opportunities to develop as leaders than their male counterparts. I take this seriously, and am currently looking into ways in which we can realistically offer such leadership training opportunities to NIEHS staff and through our grant portfolio.

Council Round Up: Spring 2009, continued from page 9

last updated in 1993. The draft updates reflect the impact of technology changes over the past decade as well as the growing international nature of the SfN membership. The working group anticipates having final versions of the policy and guidelines for Council approval later this year.

THE JOURNAL, SCIENCE MEDIA, AND PUBLIC INFORMATION

Council also discussed science media, *The Journal of Neuroscience*, and broader goals for public information. As the media industry, and science journalism in particular, continues to struggle and rapidly evolve through the current recession, there is a desire to continue discussions on the best tools to communicate effectively about the powerful potential of neuroscience.

On the heels of the 2008 annual meeting — which saw a tripling of news coverage — and robust coverage of *The Journal* year-round, it is clear that neuroscience is a tremendously popular topic of broad interest to the public. Nonetheless, there is keen awareness that more science content is delivered by "nontraditional" media — online news outlets, blogs, specialized cable outlets, and more. SfN already works actively with new media, including welcoming blogging by credentialed news media at meetings and providing all reporters with online, remote access to press conferences. Council also briefly discussed the increasingly international nature of neuroscience media interest, a promising trend. The Council will further discuss these trends at its summer meeting.

PROFESSIONAL DEVELOPMENT

SfN developed a new overarching Professional Development Committee (PDC), merging many successful efforts into one high-priority committee with expanded responsibilities. Council launched the PDC with a new strategy and charter to provide more professional development opportunities, particularly outside the annual meeting. This reflects SfN's response to the evolving needs of the field, given demographic changes and a growing range of career options. SfN's 2007 member survey found that 82 percent of respondents felt it is "important for SfN to have effective professional development programs that provide members with education and training programs."

What's New

- A new professional development (PD) strategy aims to better serve all SfN members across the wide spectrum of the neuroscience career cycle. A new committee and charter embrace this broader agenda, maximize crossfertilization of ideas, and leverage current successes in developing new programs. The committee will pay continuing attention to advancing the needs of women and underrepresented minorities in neuroscience.
- The Committee on Diversity in Neuroscience (C-DIN) and the Committee on Women in Neuroscience (C-WIN) will be a part of the new PDC; their missions and programs will remain prominent and grow through the work of two subcommittees — WINS and DINS. All current programs, activities, and members of C-DIN and C-WIN will continue under the auspices of the PDC and its subcommittees.

AT A GLANCE: NEW STRATEGIES

- Higher education and training strategy improves coordination and engagement of "stewards of the field."
- Professional development strategy supports and builds upon successful programs and expands to serve full range of members at all career stages.
- International strategy strengthens programs and builds relationships to serve scientists in both developing and developed nations.

For more information, visit www.sfn.org.

• The PDC will participate in a working group to develop a three-year plan for professional development strategies for the Society, outlining resources needed, and a plan to monitor and measure outcomes. The group will seek opportunities to facilitate transition points in the careers of neuroscientists through professional development programming. Among other things, the PDC will oversee development of an expanded menu of PD activities at the annual meeting and year-round, including an enhanced mentoring program, online career development resources, etc.



The PDC will be led by the chairs of C-WIN and C-DIN, each of whom will chair the respective subcommittee. PDC starts with a total of 30 members consisting of combined C-WIN/C-DIN members and four new PDC appointees.

HIGHER EDUCATION AND TRAINING

SfN will directly serve the neuroscience teaching needs of its members through a consolidation with the Association of Neuroscience Departments and Programs (ANDP). ANDP programs and services will continue under a new SfN committee and a new category of SfN membership. Through a new higher education and training strategy, the profession will benefit from greater coordinated engagement of and support for the "stewards of the discipline." Fifty-two percent of member survey respondents agreed that SfN should focus more attention on undergraduate and graduate neuroscience teaching.

What's New

- A higher education and training strategy is now part of SfN's strategic plan to better serve the needs of members engaged in training new generations of neuroscientists. The strategy reflects incorporation of the ANDP mission and programs.
- Following overwhelming approval by its members, ANDP consolidated with SfN on July 1, 2009, and ANDP has transferred all programs and assets to SfN.
- A new SfN membership category has been established
 — Institutional Program (IP) Members, defined as
 "academic departments and programs that award an
 undergraduate major or advanced degree in neuroscience or a neuroscience-related discipline." Current
 ANDP members will constitute the initial class of SfN's
 IP members, and ANDP member benefits will carry over
 through the end of 2009. Membership fees will remain
 at current levels through the 2010 membership year.
- A new Committee on Neuroscience Departments and Programs (C-NDP) will advise Council on matters of higher education and training and manage approved activities. Among C-NDP responsibilities, as indicated in its approved charter, are managing former ANDP activities (such as the annual spring meeting, neuroscience training program directory, and biennial survey) and approving applications for new IP membership.

INTERNATIONAL AFFAIRS

SfN has adopted a new international strategy and realigned its International Affairs Committee aimed at strengthening programming and relationships to better serve the needs of international members from all regions of the world. This comes at a time when SfN's membership is increasingly international. "Regular" (non-student) international membership is the fastest growing segment of the membership. Thirty-six percent of members are non-U.S. residents. Of these, 91 percent live in Canada, Europe, and Japan. Also, the revised strategy supports Council's recent decision to expand eligibility for service on SfN's governing board to members from outside North America.

What's New

- A revised international strategy reflects the demographics of a growing international membership in all regions of the world and the increasing globalization of neuroscience. The new strategy and revised International Affairs Committee (IAC) charter focus on strengthening professional development for international members, global public advocacy and education, international member communication, and diplomatic relations with international societies.
- SfN, the International Brain Research Organization (IBRO), and the National Academies of Science have agreed to separate the IAC-US National Committee to IBRO, which currently represents all three organizations. IBRO will have oversight of the now separate US-Canada Regional Committee (USCRC) of IBRO. This allows SfN to more easily adapt to meet changing needs and focus on priority activities that support its international strategy.
- Reflecting its ongoing commitment to supporting neuroscience in developing countries, SfN will contribute annually to USCRC to fund IAC-supported priority programs for developing countries. SfN also will continue to fund the SfN/IBRO International Travel Fellowships and other exisiting collaborations with IBRO.
- The IAC will include a subcommittee on developing country neuroscience whose members will have dual appointment to the IAC and USCRC and will represent SfN interests to IBRO and vice versa.

LEARN MORE

To view FAQs, committee charters, and strategies, visit the Professional Development section of www.sfn.org.

New in 2009: Nanosymposia, Networking, Public Outreach



Be part of the world's largest forum for neuroscientists to debut research and network with colleagues from around the world.

NEUROSCIENCE SfN's 39th annual meeting takes place from Saturday, October 17 to Wednesday, October 21, at the

McCormick Place Convention Center in Chicago. With nearly 16,000 abstracts submitted for this year's meeting, Neuroscience 2009 promises to feature cutting-edge research, while providing unlimited opportunities for learning, networking, and enrichment. In addition to all the science you expect, Neuroscience 2009 Program Committee Chair Marina Picciotto notes how features are being added too:

Nanosymposia Offer the LATEST DEVELOPMENTS

New this year, nanosymposia offer attendees the option to create and propose slide-based sessions. A nanosymposium consists of abstracts from multiple labs with a common topical interest. This new feature gives presenters the "opportunity to organize their own coherent slide sessions around unified themes that can't always be achieved when sessions are assembled from individually submitted abstracts," Picciotto said.

With attendees collaborating and proposing sessions, attendees can look forward to "higher quality, more topically coherent sessions," said Picciotto. This new format will engage younger scientists with the opportunity to form sessions on important topics while also expanding member involvement in the creation of session topics. Neuroscience 2009 will offer 82 nanosymposia.

MEET-THE-EXPERTS SERIES EXPANDS

The Meet-the-Experts Series expands in 2009 to feature two additional sessions. A total of eight experts will speak on a wide range of topics, including new frontiers in cognitive neuroscience and animal models of addiction. Experts share their research techniques and accomplishments in a personal context that offers participants a behind-thescenes look at factors influencing the expert's work.

Each of the concurrent 75-minute sessions will offer students and postdoctoral researchers an opportunity to engage an expert in an informal dialogue over breakfast. The Meet-the-Experts Series is included in the registration fee, and no additional registration is required, but space is limited.

TOP THREE REASONS TO ATTEND **NEUROSCIENCE 2009**

"This will be the first time that SfN holds its meeting in Chicago. This is a wonderful city with incredible architecture and great restaurants," said Neuroscience 2009 Program Chair Marina Picciotto.

Picciotto shares the top three reasons you should join SfN in Chicago:

- 1. Keep up with the latest developments in neuroscience, many before they are published.
- 2. Visit one of the great cities in North America while taking in lectures and events celebrating the breadth of neuroscience.
- 3. Interact with your colleagues and friends in an informal environment that can foster new collaborations.

"The annual meeting is the one opportunity for tens of thousands of people involved in neuroscience to come together in one place," added Picciotto. "Not only will the science be great, this is an excellent opportunity to meet your collaborators, touch base with those old friends from grad school, and meet new people working in your area of science."

Check out the Neuroscience 2009 Preliminary Program online at www.sfn.org/am2009 for information on Presidential Special Lectures, Featured Lectures, Dialogues Between Neuroscience and Society, professional development opportunities, and more.

A Public Celebration of Darwin

SfN's new public symposium entitled "In Celebration of Darwin: Evolution of Brain and Behavior" celebrates the 200th anniversary of Charles Darwin's birth, the 150th anniversary of the 1859 Origin of Species, and Darwin's contributions to understanding of the brain.

"The opportunity to celebrate landmark anniversaries of Darwin's work is one that the Program Committee is very excited about," said Picciotto. "This public symposium on exploring evolutionary perspectives provides a powerful means to clarify how the brain and behavior are both substrates and determinates of evolutionary terms."

Chicago: Neuroscience in the City

Chicago, home to the 39th SfN annual meeting, offers an unparalleled venue, equipped with plentiful resources, to meet the demands of a premier event like Neuroscience 2009. The McCormick Place convention facility, located just minutes from exciting downtown Chicago, offers multiple public transportation options and convenient access to the city's world-class tourism. The city provides visitors with an urban array of adventures, countless cuisine choices, and numerous science and art museums. Ranked as the third "best city in America" by *Travel & Leisure Magazine*, Chicago offers abundant resources and a value for every budget.

While in Chicago, take in some of the city's best known attractions and the many lakefront settings that capture visitors from around the world. Plan a visit to Chicago's historic Water Tower, grab a slice of Chicago's famous deep-dish pizza, or venture to The Art Institute of Chicago, which holds the largest collection of Impressionist paintings outside the Louvre in Paris. Wherever your travels take you, use Chicago's convenient and affordable public transportation to explore the city.

COORDINATED AND DEDICATED TRANSPORTATION

Whether heading from your hotel to the convention center or around town to see the sights, SfN makes getting around Chicago a breeze. Complimentary SfN shuttle buses will run every 10 minutes during peak time and 20 minutes during off peak between the McCormick Place Convention Center and all of the official SfN meeting hotels, with the exception of the Hyatt Regency McCormick Place, which is adjacent to the convention center. For Neuroscience 2009, SfN offers the largest shuttle fleet in annual meeting history with 110 buses dedicated to your travel.

More than 60 percent of SfN-contracted hotel rooms are within walking distance of Chicago's Metra system, providing a convenient and free transportation option to the convention center. The Metra stops directly inside the convention center, and SfN has contracted to provide additional train service for Neuroscience 2009. Free Metra passes will be available to all attendees for travel between McCormick Place and select stations.

If you prefer to hail a taxi for your travels, discounted shared rides are available between the convention center and downtown. In addition, a taxi dispatch center is located in McCormick Place to ensure cabs are readily available to meet demand.

DINING, NIGHTLIFE, AND SIGHTS JUST STEPS AWAY

Because SfN-contracted hotels are in the heart of downtown, you won't need to go far to match your mood to one

of Chicago's many palate-pleasing restaurants or sample the city's classics: deep-dish pizza and the Chicago-style hot dog. Trendy shops and lively nightspots line the streets in neighborhoods like Printers Row, the Loop, and along the Magnificent Mile. The Loop, a popular evening destination encircled by the L train, is home to the Theatre District and the Art Institute of Chicago.

If you take a tour of the city, you will find "Obama" tour stops, like Grant Park where the president gave his November 4 victory speech, or Hyde Park, his old neighborhood. Also in Hyde Park, you will find coffeehouses and bookstores, concerts, plays, and art exhibits, as well as the University of Chicago and Frank Lloyd Wright's Robie House, an icon of modern architecture.

Although the city brims with attractions, don't miss Chicago's Museum Campus, a short distance from the convention center and home to three of the world's finest museums. Visit Sue, the world's best preserved Tyrannosaurus rex skeleton, at the Field Museum. Enjoy a sky show at the nearby Adler Planetarium, America's first planetarium. Or stroll through the Shedd Aquarium to see countless creatures of the sea, including beluga whales and an Australian lungfish that has been a Shedd resident since 1933. Neuroscience 2009 attendees receive a \$2 admission discount at the Field Museum by showing their meeting badge.

A World-Class Venue in a World-Class City

This world-class city also offers a state-of-the-art convention facility. As the third-largest convention destination in the United States, the city of Chicago is accustomed to hosting large gatherings at McCormick Place. The city regularly welcomes the Radiological Society of North America with 60,000 attendees.

Thousands of neuroscientists plan to be among the city's millions of annual visitors for an unequalled event. We hope to see you in Chicago!

Visit www.sfn.org/map for an interactive map on Chicago, including hotels, public transportation, and a search feature for restaurants and entertainment.

ples about the brain and nervous system. *Neuroscience Core Concepts* has broad application for K-12 teachers and the general public, offering the most important insights gained through decades of brain research, while also spotlighting promising future research paths.

ADVOCATING FOR POLICY AND FUNDING

The Society engages in vigorous advocacy efforts to help policymakers clearly understand the benefits and potential of neuroscience research and to garner scientific funding from federal partners. In 2008, SfN launched the SfN Advocacy Network and the Washington Research Update to keep members informed and to promote grassroots action as the U.S. Congress confronts the issues that affect research.

As a part of the *SfN Advocacy Network*, members receive periodic e-mails and newsletters, updating them on issues important to neuroscience. Advocating for neuroscience research is a cornerstone of the Society's mission and promoting sustained government funding will ensure continued breakthroughs that can help to improve the health of people throughout the world.

BUILDING ON GREEN VALUES

On Feb. 1, 2006, SfN became the official owner of a building at 1121 14th Street, NW in Washington, DC, successfully capping off an effort to build a headquarters in the nation's capital. As part of the Society's commitment to integrate its environmentally conscious value, the design of the office space incorporated ecologically friendly building materials, which are rapidly renewable, contain recycled content, and are manufactured locally. The space is energy efficient and received the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) gold award in fall 2006. SfN invests in wind power to support the building's electricity needs, and modern lights and other mechanisms reduce energy waste.

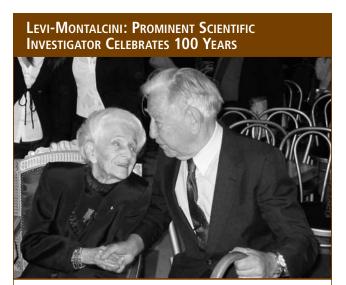
SfN celebrated its new headquarters on May 5, 2006, with an opening gala and ribbon-cutting ceremony by 2006 SfN President Stephen Heinemann and SfN's first president Edward Perl. The headquarters office embodies the science SfN members explore and demonstrates SfN's commitment to increase the knowledge about the brain. The Society uses art installations and murals to educate visitors about the beauty and elegance of the biological forms found in the brain and nervous system.

LEADING THE WAY: THE FUTURE

SfN fosters an environment that promotes the free exchange of ideas and information among the world's leading

neuroscientists. Throughout its history, SfN has encouraged great accomplishments and made an impact on the field of science at large. To date, 14 SfN members are Nobel Prize recipients.

Membership continues to grow each year, expanding the reach of *The Journal of Neuroscience* across the globe. Like any society, SfN is only as strong as its members. With continued strong leadership from prominent neuroscientists, SfN is in an excellent position to help shape the future of neuroscience.



Rita Levi-Montalcini, the oldest living Nobel laureate, is pictured with co-laureate Stanley Cohen at her 100th birthday celebration in Rome.

Rita Levi-Montalcini, Italian neurophysiologist and oldest living Nobel laureate, celebrated her 100th birthday this April at a ceremony hosted by the European Brain Research Institute.

SfN President Thomas Carew recognized the occasion in a letter on behalf of the Society. "Your scientific accomplishments and path-breaking role have raised the sights not only of women scientists — as they have in extraordinary ways — but of all young scientists," said Carew. "Through your life's work, you have demonstrated why they can and must work to chart new discoveries, follow scientific research where it leads, and challenge scientific consensus to create new horizons of discovery."

Chapters Form Cornerstone of Successful Advocacy

SfN chapters play an increasingly important role in fostering SfN's growing advocacy effort. By working at the local level, chapters build greater understanding about the regional impact of science in communities around the globe and make the case for stronger funding. Chapters can advocate in many ways: educating legislators about science taking place in local communities, educating the general public on neuroscience, and speaking up in local newspapers for strong funding increases for scientific research.



SfN New Mexico chapter members and Department of Neuroscience faculty meet with Rep. Martin Heinrich during a University of New Mexico lab tour to discuss the importance of sustained funding for basic science research.

On June 1, 2009, SfN member and New Mexico chapter leader, Dr. Don Partridge gave Rep. Martin Heinrich (D-NM) a tour of his lab and other facilities at the University of New Mexico. Dr. Partridge and his colleagues talked with Rep. Heinrich about the importance of basic science research and the need to sustain momentum from funds provided in the stimulus package for scientific research. "The more I learn, the more I want to get involved," said Dr. Partridge about his experience in advocacy.

Chapter representatives also can help spread this advocacy message to local SfN members. For the second time, SfN helped bring several chapter representatives to Washington, DC, for Capitol Hill Day, which aims to help increase awareness about the need for advocacy and strengthen advocacy expertise nationwide and worldwide. SfN incoming president Mickey Goldberg encouraged each participant to return home and talk about the Hill Day experience with local members, encourage continued advocacy, and help get other chapters involved.

Engaging with local newspapers is another example on how chapters can participate in advocacy. Interested in learning more about SfN's advocacy tools and how your chapter can become involved? Contact advocacy@sfn.org.



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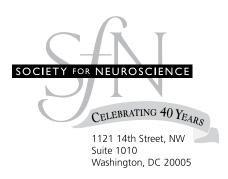
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19 trees

3,603 gallons of water 948 pounds of solid waste 1,398 pounds of hazardous effluent



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