NEUROSCIENCE QUARTERLY

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"To ensure the continued innovation that will safeguard, enhance, and extend the lives of Americans, the federal government should recommit to increasing the NIH budget at a steady, predictable pace that significantly outpaces the rate of biomedical inflation."

– White Paper on Biomedical Research
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SOCIETY FOR NEUROSCIENCE

Society for Neuroscience 2007 Election Results

The Society congratulates its newly elected officers. The membership elected Thomas Carew, University of California, Irvine, as the incoming president-elect; and Joanne Berger-Sweeney, Wellesley College, as the incoming treasurer-elect.

Thomas Carew is a Bren Professor and Chair, Department of Neurobiology and Behavior at the University of California, Irvine. He has previously served as an SfN councilor, chair of both the SfN Public Information Committee and the Education Committee, and as a member of the Committee on Committees. His research is primarily focused on an analysis of the cellular and molecular basis of learning and memory using the model system *Aplysia*.

"I am truly honored to have been chosen by my colleagues in the Society to serve as president," said Carew. "This is an extraordinary time in the history of our field. As little as ten years ago we would not have even had the vocabulary to capture some of the technical and conceptual advances we currently enjoy. And the horizon of neuroscience research is virtually unbounded. Thus, I am privileged to contribute to the leadership of the Society at this exciting era in neuroscience research."

Joanne Berger-Sweeney is a Professor of Biology and the Allene Lummis Russell Professor of Neuroscience as well as the Associate Dean of the College at Wellesley College. She has served as an SfN councilor and as a member of both the Society's Committee on Diversity in Neuroscience and Social Issues Committee. Her research focuses on understanding what role neuromodulators, particularly acetylcholine, play in the development of cerebral cortical morphology and learning and memory.

The incoming officers will begin their terms during at Neuroscience 2007 in San Diego. The Society thanks those members who voted in the election. ■

Maunsell Is New Editor-In-Chief for *The Journal of Neuroscience*

John Maunsell, PhD, professor of neurobiology at Harvard Medical School and the Howard Hughes Medical Institute, has been named the seventh Editor-in-Chief of *The Journal of Neuroscience*. Maunsell will start his five-year term on Jan. 1, 2008. For the last eight years, he has served as a reviewing or senior editor for *The Journal*.

"We are very pleased to have been able to recruit John to serve as editor-in-chief. He is an outstanding neuroscientist with a wealth of experience on the editorial side of science journals. He brings to this position an abiding commitment to excellence and to fairness in the editorial process," said SfN President David Van Essen. "I would like to acknowledge the enormous contributions of the current Editor-in-Chief, Gary Westbrook. Under Westbrook's stewardship, the quality and readability of *The Journal* has been greatly enhanced by the incorporation of many innovations and several new feature sections. I would also like to thank the search committee chaired by Carol Barnes for conducting a thorough, open, and conscientious search process."

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Message from the President

Technology Drives Discovery in Neuroscience

David Van Essen, SfN President

Neuroscience is a dynamic and vibrant field for many reasons. For one, it continues to be driven by powerful new methods for acquiring, analyzing, visualizing, and communicating neuroscience-related information. Technological advances can accelerate the pace of discovery and allow experiments that often were not even dreamed of a decade or two ago. They occur across many realms, ranging from the increasingly rapid sequencing of genes and proteins to the amazing ability to visualize brain structure and function in living animals. These advances in turn have helped foster greater integration among the diverse approaches that elucidate brain function in health and disease. For example, the ability to make a variety of conditional gene knockouts in mice has inspired countless collaborative projects whose teams have cutting-edge expertise in genetics, physiology, anatomy, development, pharmacology, and/or behavior.

A number of examples of how technology drives discovery will be highlighted at Neuroscience 2007. The four Presidential special lectures will illustrate how leading neuroscientists conceptualize and make use of new technologies to advance the field. At two other events — the "Dialogues" lecture and the Public Advocacy Forum — we will hear from leaders in the business world about innovative ideas that have the potential to transform science and technology.

This year's Presidential special lectures will emphasize three general areas, neuroinformatics, neuroanatomy, and neural computation, where technology advances have been especially significant. Neuroinformatic's, a relatively new field that provides tremendous opportunities for coping with the extraordinary flood of neuroscience-related data facing every neuroscientist. As summarized in my 'Message from the President' in this spring's *Neuroscience Quarterly*, improved methods for data mining and data sharing will play a key role in accelerating progress in neuroscience research during the 21st century. The second area is neuroanatomy, where recent advances in imaging-based circuit analysis are opening new horizons using both optical and MRI-based approaches. The third area is neural computation — how specific circuits transfer information and carry out computations that represent what brain function is all about.

Two presentations at Neuroscience 2007 will focus on information technology and informatics. The "Dialogues between Neuroscience and Society" lecture that opens the annual meeting on Saturday, Nov. 3, noon – 1 p.m., will feature Jeff Hawkins, the developer of the PalmPilot and Treo smart phone, and founder of the Redwood Neuroscience Institute that promotes research on biologically inspired computation. His lecture, the third in the Dialogues series, is entitled "Why Can't a Computer Be More Like a Brain?"

The digital computer is an incredible success of the 20th century, Hawkins says, and advances in computing have exceeded the wildest expectations of the founders of the digital age in several ways, such as increased speed and reduced size and cost. However, many of the early expectations that computers would replicate the capabilities of humans have not been met. Hawkins' talk will discuss the past and future of computing, particularly how biologically inspired principles could drive many advances in the coming decade. He will also provide a perspective on his 'personal odyssey' in mobile computing in a way that is relevant to the audience and their careers.

"Technological advances can accelerate the pace of discovery and allow experiments that often were not even dreamed of a decade or two ago."

— SfN President David Van Essen

My enthusiasm for Hawkins as a speaker in the Dialogues series was heightened when I read the last chapter of his book *On Intelligence*, in which he discusses the possibility of building intelligent machines and what one might look like. "What makes it intelligent is that it can understand and interact with its world via a hierarchical memory model and can think about its world in a way analogous to how you think and I think about our world," he writes. "Its thoughts and actions might be completely different from anything a human does; yet it still will be intelligent." Hawkins then goes on to discuss capacity, speed, replicability, and sensory systems, adding: "Within ten years, I hope, intelligent machines will be one of the hottest areas of technology and science."

Mark Ellisman of the University of California at San Diego, and one of this year's presidential special lecturers, is interested in understanding how the interplay of chemical and electrical signals in exquisitely complex neural circuits gives rise to behavior. His talk on Monday, Nov. 5, at 5:15 p.m. is titled "Integrating Neuroscience Knowledge: Brain Research in the Digital Age." He believes that we are entering an era in which neuroscientists will make use of an increasingly powerful arsenal for obtaining data, from the level of molecules to nervous systems, will become adept at navigating neuroscience data at all scales of resolution and across disciplines in federations of computerized databases, and will capitalize on this information to gain deeper insights into brain function.

Ellisman's lecture will highlight some of the tools and data available today and illustrate what tomorrow's neuroscientists might expect from neuroinformatics in an era in which scientific discoveries will rely increasingly on the development and use of telecommunications and information technology.

This topic dovetails nicely with the theme of a roundtable, "New Directions in Data Mining: Synergies Between Databases and Online Journal Publications," at this year's meeting. This roundtable will follow up on discussions at June's successful PubMed Plus meeting in St. Louis. The PubMed Plus event brought together 60 neuroscientists, informaticians, journal editors and publishers, and representatives of foundations, societies, government agencies, and the library community. Roundtable panelists will present new ideas that emerged from this conference concerning: 1) how journals can capture data in ways that facilitate data mining; 2) how to more effectively link databases and journal publications; 3) how to enhance standardization and sustainability of databases and journal supplementary materials; and 4) the pros and cons of establishing a common manuscript and peer review system for selected journals. I hope you will join this discussion, which will take place on Wednesday, Nov. 7, from 11:30 a.m. – 1 p.m.

Two Presidential lectures will discuss how advances in neuroimaging are opening up new vistas for deciphering the complex circuitry of the brain. Heidi Johansen-Berg of the Oxford Centre for Functional MRI of the Brain in England, has pioneered the development and application of novel strategies for analyzing the connectivity and functional organization of the human brain. Her lecture, "Imaging Human Brain Connections," will be held on Tuesday, Nov. 6, at 5:15 p.m.

Diffusion imaging is a type of magnetic resonance imaging (MRI) that can be used to estimate the routes taken by fiber pathways connecting regions of the human brain. This approach has already supplied novel insights into human brain anatomy and its breakdown in disease, which she will discuss in her lecture. For example, by tracing the connections of different brain regions, and detecting where these connection patterns change, it is possible to define anatomical borders between cortical regions or subcortical nuclei in the living human brain for the first time. Such non-invasive definition of anatomical regions will help inform imaging studies of functional localization in the brain, and has potential clinical applications, for example, in improving neurosurgical targeting.

Karel Svoboda of the Howard Hughes Medical Institute (HHMI) at Janelia Farm will focus on circuit analyses at the cellular level using novel optical techniques. Svoboda's lecture, titled "Imaging Synapses in Their Habitat," will discuss how recent developments in fluorescence probes and microscopy techniques allow the measurement of the structure and function of individual synapses over times ranging from milliseconds to years, even in the intact brain. These time-lapse measurements are beginning to provide answers to some long-standing questions such as: Which synapses are plastic in the neocortex, especially in response to novel sensory experience? What are the mechanisms of plasticity? How independent are neighboring synapses in terms of synaptic transmission and plasticity? How are stable synapses maintained over years?

Svoboda and others have discovered that new experiences spur new connections in the adult brain and that this is a mechanism for learning and memory. Other synapses are stable for years even though their protein components turn over thousands of times during the life of the synapse. His lecture on Saturday, Nov. 3, at 5:15 p.m. will review some highlights from the last 10 years of imaging synapses and discuss emerging advances.

Sebastian Seung of the Massachusetts Institute of Technology and HHMI will provide a fresh perspective on neural computation in his lecture, "The Once and Future Science of Neural Networks," on Sunday, Nov. 4, at 5:15 p.m. In the past few decades, mathematical models of neural networks have been used to demonstrate a number of basic principles: 1) the synaptic connections of a network can be organized to support certain patterns of neural activity, which in turn generate behavior; 2) activity-dependent synaptic plasticity can enable a network to self-organize; and 3) a network can iteratively improve its performance via reward-dependent synaptic plasticity.

To illustrate these principles, Seung will discuss recent models of birdsong generation and learning. The basic

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NIH Funding in Committee; Bush Vetoes Stem Cell Bill

The House Appropriations Committee Subcommittee on Labor, Health and Human Services, and Education approved a FY 2008 appropriations bill in June, $151.5 billion in discretionary spending — $12 billion more than President Bush requested and 5 percent more than the FY 2007 level. Mandatory programs brought the total for the bill to $607 billion. It provided $29.6 billion for the National Institutes of Health (NIH), $1 billion more than President Bush's request and $750 million more than current appropriations.

However, a planned markup – in which a piece of legislation is put into final form — for early June was delayed, possibly until July, due to criticism from Republicans on a proposed strategy for earmarks. These are provisions in legislation that direct funds to be spent on specific projects, which typically direct a specified amount of money to a particular organization or project in a legislator's home state or district. The result of the delay is that the full committee markup was not expected until after the July 4 recess.

Under the measure, the Department of Health and Human Services would receive $68.2 billion, up $4.1 billion, or 6.5 percent, over fiscal year 2007 and $5 billion more than President Bush requested. While the measure avoids the usual hot-button issues of abortion and stem cell research, it is not without controversy. Since the budget is $12 billion above the President's request, it creates the potential threat of a veto from the administration. However, the Labor-HHS-Education bill received bipartisan praise from committee members, a sign that Subcommittee Chair David Obey (D-WI) was trying to forge a veto-proof alliance. Most of the major increases in the bill occur in education, including Pell college student grants and No Child Left Behind. Overall, the bill recommends $46.5 billion to fund public health programs, an increase of $1.9 billion over current funding levels. Here, major winners were community health centers, the Centers for Disease Control and Prevention, and maternal and child health grants.

The subcommittee also approved the transfer of $300 million to the Global HIV/AIDS fund, resulting in a net increase for NIH of only $549 million, or 1.9 percent – far less than the 3.7 percent forecast for biomedical research inflation next year. One of the most promising provisions in the President's FY 2008 budget was his inclusion of an increase in funding for the Agency for Healthcare Research and Quality (AHRQ), which had been level-funded in the four previous years. The subcommittee provided the requested increase in its bill and funded AHRQ at $329.5 million.

In other legislative activity, in June, the House gave final congressional approval to legislation aimed at easing restrictions on federal financing of embryonic stem cell research. But Democratic leaders in both chambers conceded they were short of the votes needed to override a veto by President Bush.

On a vote of 247 to 176, the House overwhelmingly passed the bill, with more than three dozen Republicans joining a Democratic-led effort to authorize federal support for research using stem cells from spare embryos that fertility clinics would otherwise discard. The Senate approved the legislation in April. Minutes after the vote, President Bush renewed his pledge to veto the proposal, and did so on June 20.

The House bill received support from 210 Democrats and 37 Republicans, 35 votes short of what would be needed to override a presidential veto; 16 Democrats joined 160 Republicans in opposing the legislation. ■

SfN President Urges Increased NIH Funding in Testimony to Congress

SfN President David Van Essen submitted written testimony to both the U.S. House and Senate appropriations subcommittees on Labor, Health and Human Services, and Education (L-HHS), urging increased government funding for research. The L-HHS subcommittees are together responsible for setting NIH funding levels.

"Several years of funding for NIH that are well below inflation rates has made efficient research planning difficult, led to a slower rate of research progress, and delayed the payoffs from recent scientific advances," states Van Essen's testimony. "We need a funding stream that keeps pace with the potential for advances that will help people lead healthier, more productive lives."

Van Essen asked the subcommittees to increase NIH funding by 6.7 percent per year for each of the next three fiscal years, arguing, "This sustained increase is necessary to make up for lost purchasing power that has occurred in the past three years. In addition, increased funding will help NIH to achieve future research goals by, among other things, helping to ensure that our best and brightest young people will enter the field and continue to make neuroscience research advances that are so vital to achieving a healthier nation and a robust economy."

Van Essen's testimony encouraged subcommittee members to consider the long-term implications of increased funding. "In recent months, we have been speaking with leaders in the biotechnology and pharmaceutical industries who depend on NIH-funded discoveries, a vital prelude to and driver of their product development efforts. They agree that rather than considering funding for NIH an expense, it should be considered an investment to address problems our country will face tomorrow."

His testimony was submitted to the House of Representatives on March 30 and to the Senate on April 17. It is included in the Congressional Record. ■

SfN Supports Research!America Survey Designed to Capture Legislators' Opinion on Research Funding

SfN is providing support for Research!America's latest effort, *Your Congress – Your Health*, which is a survey given to every member of Congress to learn about their views on a variety of public health issues ranging from federal biomedical research funding, to stem cells, and to mental health insurance parity. Research!America plans to post completed questionnaires from members of Congress at www.yourcongressyourhealth.org.

This latest effort by Research!America follows a successful pilot effort from 2006, *Your Candidates – Your Health*, which was geared toward candidates for Congress. Nearly all Congressional candidates who participated in *Your Candidates – Your Health* completed the survey online and offered additional comments. The overwhelming majority made significant use of the comment section that followed each question.

Other organizations joining SfN in supporting the formulation of *Your Congress – Your Health* are AARP, American Association of Colleges of Nursing, American Association of Colleges of Pharmacy, Association of American Medical Colleges, Association of Schools of Public Health, *PARADE*, Albert and Mary Lasker Foundation, The Endocrine Society, Pharmaceutical Research and Manufacturers of America, and United Health. ■

SfN Supports New White Paper Calling for Sustained, Increased Federal Support for Biomedical Research

The Society for Neuroscience leadership praised a white paper endorsing sustained federal biomedical research funding released in June by the Center for Health Transformation (CHT), as well as a related op-ed piece which appeared in the June 24 *San Francisco Chronicle*.

"This document presents powerful new arguments that we hope will resonate with policymakers within the Administration and on Capitol Hill, and result in increased budgets for agencies such as the National Institutes of Health and National Science Foundation," said SfN President David Van Essen.

CHT was founded by former House Speaker Newt Gingrich, and it is dedicated to the creation of a 21st century intelligent health system that saves lives and saves money. SfN joined CHT in 2006 because of the shared commitment to achieving a sustained and stable increase in federal funding for biomedical research.

The doubling of the NIH budget between 1998 and 2003 produced major advances in the nation's health due to greater understanding of disease mechanisms and the emergence of new diagnostic and therapeutic approaches for many disorders, the white paper notes. In contrast, flat funding for the NIH since 2004 has slowed the pace of progress in biomedical research. The paper emphasizes that:

- Federal policymakers should view investment in biomedical research as an opportunity to deliver longer and more productive lives to Americans, and should not regard it as just a fiscal obligation or cost.
- The "start-stop" funding approach in recent years has hindered efficient research planning and slowed the rate of progress.
- Surveys indicate that Americans recognize that the benefits of biomedical research greatly exceed the amount the Federal Government invests to support this work.
- Investments in basic biomedical research also benefit the nation by stimulating the biotech industry, a dynamic and very important component of the economy.

The paper concludes: "Steadily growing investments in biomedical research are vital. To ensure the continued innovation that will safeguard, enhance, and extend the lives of Americans, the federal government should recommit to increasing the NIH budget at a steady, predictable pace that significantly outpaces the rate of biomedical inflation."

The white paper's arguments are in line with SfN's recent efforts to create a more favorable environment in Washington for increased funding. These efforts include actively encouraging biomedical industry business leaders to take the lead in advocacy efforts on Capitol Hill and within the Administration; educating key members of Congress in both parties whose vote could make a difference for federal support of biomedical research; and continuing to visit elected officials on a regular basis. ■

Former House Speaker Gingrich Discusses Biomedical Research Funding, New Arguments Supporting NIH

Newt Gingrich

Newt Gingrich served as Speaker of the House from 1995 to 1999, and was Time *magazine's Man of the Year in 1995. He is the founder of the Center for Health Transformation in Washington, DC. Gingrich will address the 2007 SfN annual meeting on the topic of "Biomedical Research Funding: Rebuilding Support for a Vital Investment."*

***SfN:* One of your major efforts during recent years has been the founding of the Center for Health Transformation (CHT), which is "dedicated to the creating of a 21st century health care system that saves lives and saves money." Please expand on the purpose and goals of CHT.**

Gingrich: I founded the Center for Health Transformation because of the enormous impact that health care has on all Americans. Sooner or later we all rely on that system, and I think we are all entitled to a system that consistently delivers outstanding results. No one disputes that we could save a tremendous number of lives each year by simply migrating proven solutions throughout the system. So that, alone, presents tremendous opportunities to improve the lives of Americans.

The other major impact of health care is financial. It's already a $2 trillion enterprise — 16 percent of our economy. Even by the federal government's standards, that's a lot of money. If that money were used more effectively, I believe we could deliver dramatically better health outcomes for Americans. It's been decisively demonstrated by Jack Wennberg at Dartmouth and others that, in our current system, the best care providers are often significantly less expensive than those delivering worse outcomes. We spend enough on healthcare. The challenge is to spend it more effectively.

We founded the Center for Health Transformation with the mission of accelerating the adoption of transformational solutions and policies — solutions that would deliver better health and more choices at lower cost. We do that by encouraging the collaboration of public and private sector leaders dedicated to the creation of what we call a 21st Century Intelligent Health System.

***SfN:* How does neuroscience research fit into the mission of CHT?**

Gingrich: Neuroscience will be extremely important for reaching the Center's mission.

It's important to temper our criticisms of the current system by celebrating what modern healthcare, including public health, has accomplished over the past century. America enjoyed more than a 50 percent increase in life expectancy over the past century — an increase of almost three decades over the course of the 20th century, from 47 to 77 years of age.

Progress, in terms of longevity, has come more slowly in recent decades as our focus has increasingly shifted to the complex, chronic diseases of aging, but it has continued. Perhaps more importantly, throughout this period the biomedical research community has been making dramatic breakthroughs at a foundational level — both in our understanding of these diseases and in the instrumentation and tools needed to detect and treat them. I think the odds are good that we are on the leading edge of rapid, additional gains in longevity that will look much like the remarkable advances of the early 20th century.

"Patient advocacy groups, academic centers and research hospitals, scientific and medical societies, and the private sector with their employees have the latent potential to mobilize in a way that politicians simply can't ignore. These groups have the strong advantage that they are pushing an agenda that's both smart policy and compassionate."

— Newt Gringrich

I think a significant source of these longevity gains, as well as an overall improvement in quality of life, will come from the progress now being made in neuroscience. Some of the most important diseases measured by their growing national implications directly attack the brain. Alzheimer's disease is of course the leading example, given the anticipated increase in prevalence as we live longer and the baby boomers enter their senior years.

But most of us not directly engaged in the neurosciences are only now grasping what the neuroscience community has long suspected — that the brain very likely has a

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Neuroscience 2007 Features Exciting Lectures, Symposia, and More

The 37th annual meeting of the Society for Neuroscience will take place Saturday, Nov. 3 through Wednesday, Nov. 7. Scientists from around the world will converge at the San Diego Convention Center to hear the latest cutting-edge research and exchange ideas about the brain, spinal cord, and nervous system. More than 16,000 abstracts have been submitted for the meeting, up nearly 15 percent over 2006.

Last year's meeting saw the debut of a new schedule that ensured scientific content concluded by 6:15 p.m. This schedule achieved its desired effect of allowing attendees to attend evening social and networking events, and will be implemented again for Neuroscience 2007. Socials will be held Sunday through Tuesday.

A special presentation by Newt Gingrich, former speaker of the U.S. House of Representatives, will address biomedical research funding. Gingrich, the founder of the Center for Health Transformation, will argue that increased funding for NIH and NSF is an important step toward an intelligent health care system. Also, he will talk about how scientists can more effectively communicate with national policymakers to affect change.

SfN's 2007 Public Advocacy Forum will welcome Andy Grove, former CEO of Intel and *Time* magazine's Man of the Year in 1997. Grove, an outspoken advocate for accelerating the pace of biomedical research, will discuss the promise and limitations of a new, unified systems engineering model for translating basic neuroscience into new ways to fight brain disorders. He will also address the balance of highly integrated, disease-focused, massive scientific efforts with the now-dominant, investigator-driven research model.

Scientific Program Addresses Promise, Ramifications of New Technology

The Program Committee selected 11 featured lectures, 13 special lectures, 24 symposia, and 22 minisymposia in areas ranging from studies of basic neural function to the complexities of human behavior. This year's meeting program illustrates the scope of the field and addresses the new technologies that promise to transform it. The Presidential Special lectures will focus on neuroinformatics, neuroimaging, and computational neuroscience. (see Message from the President on page 2 for more details.)

This year marks the third installment of the popular "Dialogues between Neuroscience and Society" lecture series. A lecture titled, "Why Can't a Computer Be More Like a Brain?" will be delivered by Jeff Hawkins, who developed the PalmPilot and Treo smartphone and established the Redwood Neuroscience Institute to promote research on memory and cognition. Hawkins will discuss how biologically inspired principles will drive many of the next decade's coming computing advances.

Susan Lindquist of the Whitehead Institute for Biomedical Research and Howard Hughes Medical Institute will present the Albert and Ellen Grass Lecture, "Protein Folding and Misfolding in Neurobiology." Lindquist will discuss therapeutic strategies to control the folding of amyloidogenic proteins and the consequent biological effects.

This year's Fred Kavli Distinguished International Scientist Lecture will be given by Tamas F. Freund of the Institute of Experimental Medicine, Hungarian Academy of Sciences. He will talk about the control of cortical inhibition and excitation by endocannabinoids and its relation to disorders such as anxiety and epilepsy.

The David Kopf Lecture on Neuroethics, given by Martha Farah of the University of Pennsylvania, will outline the ways in which neuroscience is poised to change our lives through powerful new tools for monitoring and manipulating the human mind, and through its mechanistic view of human nature. Shigetada Nakanishi of the Osaka Bioscience Institute will deliver the Peter and Patricia Gruber Lecture. He will address the fundamental question of how synaptic transmission is regulated and integrated in the neural network.

SfN to Launch Roommate Matching Service

The Society will launch an online forum on July 1, 2007 to assist students and Category II members in corresponding with other students and caetgory II members interested in sharing hotel accomodations in San Diego for Neuroscience 2007; Nov. 3 – 7, 2007.

Active student and Category II members will receive an e-mail inviting them to join the online forum where they can create profiles and correspond with one another, exchanging up to 70 personal messages through the forum, eliminating the use of personal e-mail accounts. Participants must use their individual discretion and accept sole responsibility for their use of the forum.

SfN will monitor content in the online forum and reserves the right to remove any content that is not directly related to the purpose of the forum. ■

The Society will again offer physicians the opportunity to earn 33 Continuing Medical Education credits by attending a variety of sessions at the meeting. Physicians may earn Category I credits by attending lectures, symposia, and minisymposia.

In addition to lectures and symposia, Neuroscience 2007 will feature numerous workshops, meetings, and events. The popular Brain Awareness Week Campaign event will feature Richard Morris, President of the Federation of European Neuroscience Societies. This year's event takes place at a new time – Saturday, Nov. 3, at 3 p.m. For a third year, the Meet-the-Expert Series will offer participants a behind-the-scenes look at innovative techniques from the experts who developed them. Each of the six concurrent 90-minute sessions will offer students and postdoctoral researchers an opportunity to engage an expert in an informal dialogue over breakfast.

A short course organized by Jacqueline Crawley of the National Institute of Mental Health will address strategies for rodent behavior phenotyping. Beverly Davidson of the University of Iowa will lead a second short course about inhibitory RNAs in neuroscience. To register for short courses, visit www.sfn.org/registration. This year's Neurobiology of Disease Workshop on sleep and sleep disorders will feature six experts including course organizer Clifford Saper of Harvard Medical School. There will not be on-site registration for short courses or the NDW.

Two new workshops this year will offer tips on forming and reviving SfN chapters, and on conceptualizing and constructing successful symposium and minisymposium proposals for SfN annual meetings.

Resources Make Navigation, Planning Easy

Neuroscience 2007 will provide attendees with the resources they need to easily navigate the San Diego Convention Center and find meeting sessions. Events are arranged thematically, and easy-to-read signs will provide direction.

The Neuroscience Meeting Planner (NMP) will help attendees plan each day at the meeting according to specific interests. In the on-site NMP viewing room, users will be able to search the meeting's program, add presentations to an electronic itinerary, and then download the itinerary to a PDA device. Downloaded to a personal computer, the planner/abstract viewer will periodically check the Web for changes and updates. ■

Student and Category II Members Are You Looking for Cost-Saving Options to Attend Neuroscience 2007?

Reduced Registration Fees

- Why wait in line to pay higher registration fees when savings are just a click away? Visit www.sfn.org/am2007 between Tuesday, July 10 at noon EDT and Monday, Sept. 24 at midnight EDT to take advantage of discounted meeting registration fees.

	Advance	Online	Onsite
Student Member	$50	$60	$85
Student Member Undergraduate	$40	$40	$40
Student Member Category II	$25	$30	$43
Regular Member Category II	$115	$133	$153

Lowered Priced Lodging Options

- Student & Member Category II Block – Lower priced hotel rooms, with single rates ranging from $69 to $159 (not inclusive of tax), located downtown and in Mission Valley have been set aside just for you. The last day for student and member Category II registrants to make hotel reservations from the student and member Category II block is Sept. 24. Rooms will be assigned on a first-come, first-served basis until depleted.
- (New in 2007) Roommate Matching Service – Participate in an online forum that will allow you to locate and correspond with other SfN student and Category II members interested in saving by sharing a hotel room. This service is available to students and Category II members only. More information is available online in the Student Guide to San Diego Savings.

Discounted Rental Rates and Airfares

- Airfare and car rental discounts have been negotiated for Neuroscience 2007 attendees. Be sure to reference SfN's file number (printed in the *Preliminary Program* and on the Neuroscience 2007 Web site) when making reservations.

Make www.sfn.org/am2007 Your Neuroscience 2007 Planning Resource! | San Diego, Calif., Nov. 3 – 7, 2007

SfN Reaches K-12 Teachers at 2007 NSTA Conference

Since 2003, the Society for Neuroscience has maintained a strong presence at the National Science Teachers Association (NSTA) National Conference on Science Education. The annual event represents one of the Society's largest public education efforts and illustrates its commitment to connecting with K-12 teachers in an effort to infuse neuroscience content in educational programs.

This year's NSTA conference took place March 29 through April 1, 2007 in St. Louis, Mo., attracting nearly 10,000 attendees. The Society partnered with NIH and other biomedical research institutions and organizations to form the "Research Zone" in the exhibit hall. Staffing the exhibit for SfN were members of the Public Education and Communication Committee (PECC), neuroscience students from the Washington University, and SfN staff. There, the Society's educational resources were distributed to K-12 educators, science educator coordinators, and university faculty who prepare future teachers.

SfN President David Van Essen spent time at the exhibit and also attended one of SfN's three sponsored workshops. Workshop proposals were solicited from members and selected by the PECC. Each was presented by a neuroscientist-teacher pair. Participants in the workshops were led through hands-on neuroscience education activities (such as blindfolded taste tests and computer simulations) that could be translated to the classroom.

SfN member James Churchill of St. Louis University in a discussion about neuroscience education with a teacher at the NSTA Conference.

SfN members will be asked to submit workshop ideas for the 2008 NSTA conference in Boston. Please check future Society publications for details about this and other public education initiatives. ■

SfN Partners with the National Science Olympiad Tournament

The Society for Neuroscience sponsored two events at the 2007 Science Olympiad National Tournament, which took place May 18 – 19, 2007 at Wichita State University in Kansas. Approximately 5,000 people were in attendance as 15-member teams of middle and high school students competed in 46 different academic events. More than 14,000 schools in all 50 states field Science Olympiad teams, who train and compete in local and state events throughout the year.

SfN contributed a special award to the team with the highest score in the Health Science event, which included a neuroscience component. Public Education and Communication Committee member James Churchill represented SfN at the awards ceremony, presenting a trophy and certificates to the team from Centerville High School in Centerville, Ohio.

SfN member James Olson is a scientist coach for the Centerville team. The award entitles two members of the team and coach Penny Valenti to attend Neuroscience 2007 in San Diego.

The next national tournament will be held in May 2008 at George Washington University in Washington, DC. SfN members are encouraged to get involved by helping their local teams prepare for the competition. For more information, please visit www.sfn.org/so. ■

The competitors of the 2007 Science Olympiad National Competition, including the two Health and Science winners, Hassan Kamran and Kyle Lyman.

SfN Members Advocate for Neuroscience on Capitol Hill

SfN Congressional Visits Day took place Thursday, April 17, with nearly 20 Society members learning about the process of effective communication on Capitol Hill and visiting congressional offices to advocate for neuroscience. "This day was very rewarding and reinforced for me the importance of these activities," said attendee John Morrison, chair of SfN's Government and Public Affairs Committee. "It was a learning experience for those of us that participated and a valuable opportunity to express the concerns and priorities of SfN face-to-face with Congressional staffers."

In the morning, participants gathered to hear Sherwood Boehlert, a retired New York congressman and former chairman of the House Science Committee, discuss the role of scientists in advocacy efforts. He was followed by Kevin Whittlesey, an SfN member and American Association for the Advancement of Science Congressional Science Fellow. Whittlesey, currently working in the office of Rep. Doris Matsui (D-CA), talked about his transition from the lab to Capitol Hill. His experience with Congressional culture provided a unique perspective on the practical aspects of lobbying and advocacy. Lyle Dennis of Cavarocchi, Ruscio, and Dennis, the Society's government affairs consultant, then gave a presentation on "What Grabs a Legislator's Attention." Morrison called the morning presentations "very effective in preparing us to get the most out of our interactions with Congressional staff."

Sherwood Boehlert speaks to SfN members on Capitol Hill.

During the afternoon, participants went to Capitol Hill, visiting the offices of their state delegations. In all, SfN members visited 23 Senate and House offices. Please check future Society publications and www.sfn.org for information about upcoming advocacy efforts. ■

New SfN Advocacy Videos Feature Prominent Public Officials

At Neuroscience 2007, SfN will debut a video, the third in a series, which features prominent pubic officials' struggles with brain diseases. Entitled, "Battling Brain Disorders: Voices from Public Figures," the new DVD highlights Representative Patrick Kennedy (D-RI) and his struggle with addiction and bipolar disorder, and Senator Lisa Murkowski (R-AK) and her family's experience with ALS.

Started in 2004, the patient video series illustrates the devastating effects of brain disorders on patients and families, and highlights the importance of neuroscience research to find better treatments. The videotaped segments include a patient, his or her family, and a leading neuroscientist in the field. The 2007 videos feature psychiatrist Joseph Coyle speaking about recent developments in mental health research during the segment with Kennedy. In the ALS video with Murkowski, neurologist Jeffrey Rothstein addresses scientific developments in ALS research.

Each segment conveys what life is like with the disease for the patient and for the family. The videos periodically show SfN members Coyle and Rothstein discussing the current state of treatment, and the prospects for better understanding of disease and therapies.

Previous videos have featured members of the general public, but this year, SfN decided to highlight prominent public figures to convey the message that brain disorders affect everyone, regardless of political party, wealth, or stature in the community. As in the past, the DVDs will be used during Brain Awareness Week events and meetings with legislators on Capitol Hill. SfN is currently reaching out to additional public officials in an effort to film more segments prior to the annual meeting in November. This DVD will be a powerful advocacy tool. If you know a public figure that may be interested in participating, please contact Jaclyn Diamond at jdiamond@sfn.org. To see other videos in the series, visit www.sfn.org/publications. ■

ANDP Meeting Discusses Trends in Teaching

The 2007 Spring Meeting of the Association of Neuroscience Departments and Programs (ANDP) was held May 5 – 6 in Bethesda, MD, where sessions addressed a variety of topics in neuroscience education and research training, including tools for teaching, mentoring, and funding graduate education, as well as on the topic of protecting researchers who use animals in research.

The ANDP represents over 200 programs and departments in North America to advance education and research training in academic neuroscience. The approximately 70 meeting attendees represented ANDP member programs, federal funding agencies, and the Society for Neuroscience (SfN). "All sessions generated lively discussions, and ANDP members had the opportunity to share their own experiences in tackling these important questions and problems," said ANDP President, Alison Hall. (Links to the meeting agenda, summary, and PowerPoint presentations can be found at www.andp.org/meetings/2007/springsummary.htm.)

A panel discussed Web-based interactive tools for organizing and communicating teaching materials and a proposal to create an online compendium of neuroscience teaching materials. A session on "Mentoring the Mentors" included a discussion of the attributes of effective mentors and mentoring programs and tools used at the National Institutes of Health (NIH).

ANDP Past-President George Rebec led an open discussion with SfN President-Elect Eve Marder and Executive Director Marty Saggese. ANDP members were updated about SfN's strategic priorities and current committee structure and roles. Discussion centered on areas of common interest and potential areas for closer collaboration between the two organizations in support of neuroscience education and training.

SfN Councilor and UCLA Department of Neurobiology Chair, Marie-Francoise Chesselet, presented a recent report by the UCLA Task Force on the Protection of Faculty Research and Researchers that was a response to the growing campaigns of harassment and intimidation directed at researchers by animal rights activists. The report addresses how universities can support responsible and humane conduct of animal research while effectively responding to such attacks. Chesselet noted that the report makes strong recommendations for new policies that can serve as a resource for the broader neuroscience community to better support and protect its researchers.

Other meeting sessions focused on funding graduate education in a time of declining NIH resources, and on issues surrounding the "leaky pipeline" for women in academic science. Thomas Insel, director of the National Institute of Mental Health (NIMH), discussed trends and future prospects for allocation of institute funds across the different funding mechanisms, taking into account data about trainee "success rates" compared across funding types. Insel also discussed the changing culture and workforce needs for scientific research and the training required to produce the types and numbers of scientists to meet those needs.

The ANDP will meet again during the SfN annual meeting in San Diego, where it will sponsor the ANDP Forum on Professional Development and the Student Hospitality Suite. Prior to that, in September, ANDP will launch the next nationwide survey of training programs in neuroscience, a valuable source of information about trends in neuroscience education and training. The 2005 survey, published in spring 2006, is available online at: www.andp.org/surveys/surveys.htm. ■

Symposium Exploring Carnegie Initiative on the Doctorate's Impact on Neuroscience to be Held at SfN Meeting

A symposium chaired by George Rebec, director of the neural science program at Indiana University and past president of the Association of Neuroscience Departments and Programs (ANDP), will be held at Neuroscience 2007 to address the Carnegie Initiative on the Doctorate (CID). The CID was a five-year project, spearheaded by the Carnegie Foundation, that worked with university departments in six disciplines — chemistry, education, English, history, mathematics and neuroscience — to review the purpose and practices of their doctoral programs. A total of 15 neuroscience departments and programs participated in the CID and are continuing their commitment and efforts to strengthen their programs.

The CID examines how well graduates of these programs are prepared for research and employment in an environment of funding constraints, interdisciplinarity, faculty entrepreneurship, intellectual property concerns, strict visa regulations for foreign students, and other pressures. In *Envisioning the Future of Doctoral Education*, a book containing essays commissioned by the Carnegie Foundation about the six chosen disciplines, an introductory chapter explains that the fields were chosen "because they represent both core liberal arts fields and emergent interdisciplinary fields."

Zach Hall, former director of the National Institute of Neurological Disorders and Stroke (NINDS), writes about "challenges for doctoral education in neuroscience that arise from neuroscience being a discipline that emerges out of many component disciplines," an emergence that he judges "is not, and perhaps should not ever be, complete." He argues that the field "must encourage integration within, but must also encourage close connections with component disciplines."

The symposium, titled "The Carnegie Initiative on the Doctorate: Awarding the Neuroscience PhD in a Changing Academic Landscape," will offer perspective on the future of the field's doctoral training and the innovations being implemented by the neuroscience programs as a result of the initiative. Examples of these changes are included in an upcoming book, "The Formation of Scholars: Graduation Education for the 21st Century," that distills the lessons learned from the CID's work with doctoral programs across the six disciplines.

The symposium is part of an effort by the Society and ANDP to spread the word about ideas born from the CID, and to inspire other doctoral programs to join the dialogue about the principles and practices of doctoral training in neuroscience with a view to best training the next generation of neuroscientists. The symposium will be co-chaired by George Walker, director of the CID.

Neuroscience programs participating in the CID: Boston University, Dartmouth College, Duke University, Georgetown University, Michigan State University, Ohio State University, University of Alabama at Birmingham, University of Illinois at Urbana-Champaign, University of Louisville, University of Maryland at Baltimore, University of Minnesota, University of Pittsburgh, University of Southern California, University of Vermont, University of Wisconsin at Madison.

For more information on the CID, visit http://www.carnegiefoundation.org/programs/index.asp?key=29. ■

NIH Blueprint Spurs Innovation, Resource Development

As it approaches its third birthday, the NIH Blueprint for Neuroscience Research (www.neuroscienceblueprint.nih.gov) continues to develop tools, training, and other resources — such as new animal models of neurological disease, advanced brain imaging technologies, and open-access repositories of neuroscience data — that are so important to many neuroscientists. By bringing together the NIH Office of the Director and the 15 NIH Institutes and Centers (ICs) that support neuroscience research, the Blueprint supports the basic architecture for neuroscience research, leaving it to the research community to design specific projects. Each year, the Blueprint draws upon a shared fund comprising less than one percent of the combined neuroscience funding of its member ICs.

Recently, the Blueprint kicked off its plan for a series of initiatives based on three themes: neurodegeneration in FY 2007, neurodevelopment in FY 2008, and neuroplasticity in FY 2009. The aim is to identify obstacles in these research areas and to provide investigators with the tools and training needed to overcome them.

Announced in fall 2006, the neurodegeneration initiative included a Request for Applications (RFA) for the study of biomarkers of neurodegenerative disease and an RFA for the development of new ways to deliver therapeutics across the blood-brain barrier. The initiative also offered training in neurodegeneration research to postdoctoral fellows and established investigators.

Later this summer, the Blueprint will announce a set of funding announcements under its neurodevelopment initiative. The FY 2009 neuroplasticity initiative is at the planning stage, and in August 2007, the Blueprint will convene a workshop to identify the needs of researchers in this field.

In addition to confronting specific research challenges through its thematic initiatives, the Blueprint supports the development of resources with general utility in neuroscience research. Some of the Blueprint's earliest projects focused on increasing the impact of previously established resources. For example, the gene expression, Single Nucleotide Polymorphisms genotyping, and laser capture microdissection services of the NIH Neuroscience Microarray Consortium (http://arrayconsortium.tgen.org) used to be available only to grantees of NINDS or NIMH. In March 2005, those services were opened to researchers supported by any Blueprint IC. Since then, out of 69 investigators who have submitted projects to the Consortium, 41 are supported by Blueprint ICs other than NINDS or NIMH. The Blueprint has also expanded the Gene Expression Nervous System Atlas (GENSAT; www.gensat.org/index.html) — a project to map gene expression in the mouse nervous system using *in situ* hybridization and the GFP reporter system — by funding pilot studies on the eye and ear.

The Blueprint also supports the creation of new general-use tools — as well as new platforms for sharing tools and data. For example, the Blueprint is supporting three labs to develop Cre recombinase mice that can be used to drive expression of reporter genes and conditional-ready alleles in the mouse nervous system. Because about 75 percent of the mouse lines being catalogued under the NIH Knockout Mouse Project (KOMP; www.nih.gov/science/models/mouse/knockout) are expected to carry conditional-ready alleles, the driver lines will yield an unprecedented ability to knock out target genes in specific cell types and during specific time windows. The first driver lines are likely to be available by mid-2008. With input from researchers supported by its member ICs, the Blueprint is also facilitating the deposition of approximately 220 mouse lines of interest to the neuroscience community into the Mutant Mouse Regional Resource Centers at UC Davis and the University of Missouri/Harlan (www.mmrrc.org).

The Blueprint supports several projects intended to enhance the use of neuroimaging technology, such as the Neuroimaging Informatics Tools and Resources Clearinghouse (NITRC; www.nitrc.org), a web-based bank of software and other tools for brain imaging. Users can add tools to the site and rate tools already on the site, which is currently in beta testing. The Blueprint also supports training programs in neuroimaging and made several awards under an RFA seeking new ways to image neural activity at the level of individual cells and circuits.

Meanwhile, the Blueprint has expanded the NIH MRI Study of Normal Brain Development (www.brain-child.org), an effort to collect brain images and behavioral data from some 500 healthy children, newborn to age 18. Thanks to the Blueprint, the brain imaging will not only include conventional MRI, but diffusion tensor imaging (DTI), which allows detailed visualization of white matter tracts. Another Blueprint-supported project expected to have substantial clinical impact is the NIH Toolbox for Assessment of Neurological and Behavioral Function, which is a set of uniform measures that neurologists can use to test cognitive, sensory, and motor abilities.

Finally, the Blueprint informatics team coordinates several projects in addition to the NITRC. One of these is the Neuroscience Information Framework (NIF; http://neurogateway.org), an online inventory of neuroscience data, resources and tools — expected to enter beta testing in

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Biomedical Research Funding, *continued from page 7*

fundamental role in almost all aspects of an individual's health. As we better understand the brain and the central nervous system, we are going to uncover a wealth of potential approaches for intervening in almost all diseases. Some of these might prove to be profoundly important.

I'd even go a bit farther. I view the brain as one of the last great frontiers for exploration. We at the Center are so convinced of its importance that we've joined in calls for a molecular mapping of the brain, similar to the Human Genome Project. Some visionaries like Paul Allen, with the Brain Atlas project, have begun this work already. I think we need to greatly increase the pace of this exploration through significant public and private investments and collaboration. Properly managed, I'd be stunned if we failed to earn tremendous returns on these investments.

***SfN:* Given the changes in the political dynamics in Washington, what do you think will be the impact on federal science research funding for National Institutes of Health (NIH) and National Science Foundation (NSF)?**

Gingrich: I don't think it's possible to forecast future NIH and NSF funding based on factors such as the party that controls the House, the Senate, and the White House. The doubling of the NIH happened when Republicans controlled Congress and Democrats controlled the White House — what conventional wisdom would regard as the surest prescription for gridlock.

The dynamics that will continue to make for a difficult environment for NIH and NSF funding are the federal deficits. Whether the framework is PAYGO (the requirement that newly proposed expenditures or tax cuts must be accompanied by commensurate increases in revenue or a reduction elsewhere in the budget) or something else, the fact is that in terms of appropriations, it's a zero sum game on the Hill right now. Every extra dollar allocated to NIH or NSF will need to come from some representative's project, and members are very good at guarding and protecting their projects.

There are three ways to break out of this dynamic, short of a reversal in our federal fiscal situation — something no one expects any time soon.

First, it's possible that a particularly effective political leader will be able to make the case for basic research in such compelling terms that he or she puts together a decisive majority in Congress. Former Representative John Porter did a remarkable job of doing exactly this in the mid-90s, bringing together a core of us that decided to make the NIH doubling a key priority. But waiting for this kind of champion to emerge is a pretty thin strategy. It might happen, but you certainly can't count on it.

The second possibility is if the natural constituents for basic research mobilize so effectively that it simply becomes too costly for politicians to ignore them. This never happened while I was in office, but it could. Patient advocacy groups, academic centers and research hospitals, scientific and medical societies, and the private sector with their employees have the latent potential to mobilize in a way that politicians simply can't ignore. These groups have the strong advantage that they are pushing an agenda that's both smart policy and compassionate.

The ideal strategy might be to reform the methods used to shape policy by the Congressional Budget Office and Office of Management and Budget, but change here is unlikely.

***SfN:* What are your thoughts on the short-term and long-term implications of the President's budget recommendations for a 1.7 percent cut for NIH and a 7.3 percent increase for NSF in FY2008?**

Gingrich: Let's start on the positive side. The President's call for an NSF increase is exactly right. One of the mistakes I think we made in the in the late '90s is that we didn't take care of NSF when we doubled NIH. In fact, because it was starting from such a smaller base, we should have tripled it. The work supported by NSF lays the foundation, through advances in computational methods, instrumentation, and other tools, for subsequent advances made through the NIH. I think the Bush Administration deserves high praise for identifying this priority and pushing it.

Their recent NIH budgets, by contrast, have been very disappointing. We doubled the NIH budget with the assumption that this would catch it back up to where it should have been all along. Recent budgets, however, are rapidly eroding all that the doubling accomplished. Not only do we risk soon finding ourselves back where we were a decade ago, but this feast-famine cycle is a terrible context for trying to plan and execute sensible long-term research projects.

In terms of the implications of these NIH cuts, I do expect that, whatever the federal government does, biomedical advances will continue at a remarkable pace. Biomedical research is now a global enterprise, linked by instantaneous worldwide communications. Biomedical research activity is already shifting, in relative terms, overseas — particularly to the Pacific Rim.

But this isn't a good reason to reduce NIH funding. First, it makes a dramatic difference in terms of lives and money,

whether advances in fighting diseases come sooner or later. Many of us baby boomers are very glad The Salk vaccine was introduced in '54 rather than '64. It'll be good news if we have available decisive interventions for Alzheimer's disease within 20 years. It would be much, much better if we have such interventions available within 10 years.

Second, it's a wonderful thing that researchers in other countries are also working to overcome these same diseases. But it's in our national interest on grounds ranging from economic growth to national security that America remains at the forefront of biomedical research. We need to find positive ways to maintain our leadership, and strong NIH funding has to be regarded as an essential part of any such strategy.

"In the coming election cycle, probably the most effective thing to do is simply to attend candidates' town hall meetings."

— Newt Gringrich

***SfN:* What opportunities do you see for the research community to utilize the upcoming national election to effectively address public health issues, including life sciences research funding?**

Gingrich: I think the research community needs to speak out forcefully in the upcoming elections. In fact, I'd argue it's their civic responsibility. The research community has a story to tell that other Americans can't tell on their behalf.

Speaking out needn't mean using bullhorns and placards. In the coming election cycle, probably the most effective thing to do is simply to attend candidates' town hall meetings. Succinctly explain why you care about research funding. Ask them to explain their position. Press them for specifics. This can all be done in a very respectful and appropriate way.

Having hosted hundreds of such meeting while in office, I can assure you that if researchers consistently attend such meetings, it will make a lasting impression on policymakers and candidates. It is surprisingly effective. You don't need to travel beyond your congressional district to make an impression on representatives, but you probably will need to show up on a couple Saturday mornings at local political events.

Another approach is for researchers to work through their employer or through a professional association to request a meeting with their representative in their district office. With good preparation and a clear message, this too can be very effective.

Either way, the important thing is that researchers, themselves, get engaged in the upcoming elections. If the research community simply followed through on these two simple suggestions, you'd likely be surprised how quickly that would translate into action on the Hill. A lot of people complain about federal policies, but surprising few take part in identifying and pushing for solutions.

***SfN:* What role do you think the business sector could play — and should play — in supporting a national agenda that includes strengthened federal research funding?**

Gingrich: The business community is, of course, very actively engaged in research policy issues. As a matter of fact, it was a group of business executives that played a key role in educating me as the incoming Speaker about the importance of NIH funding.

I think the pharmaceutical and biotech industries should forcefully advocate for strong NIH and NSF funding. It's in their interest, just as it is for the country as a whole. On the other hand, we need to be realistic about the number of pressing policy issues that these industries are facing right now.

We've begun working with SfN and the Campaign for Medical Research to encourage private industries to make this a top policy priority. We think that's extremely important, but we also think building that kind of broad coalition will take some time.

In the near term, I'd encourage scientists working for private corporations, within the guidelines established by their employers, to work through their professional associations or as private citizens to make this case. Private sector scientists have the same civic obligations shared by public sector researchers and, indeed, all Americans. If you see problems, there's no excuse not to get engaged in working to fix them.

***SfN:* Are there new, persuasive arguments that scientists, patients, public health advocates, and others can make to their representatives to demonstrate the importance of federal science funding?**

Gingrich: At the Center, we have just completed a white paper that lays out what we view as the most important new arguments for NIH funding. You can find the white paper

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Message from the President, continued from page 3

principles behind the models can be appreciated intuitively, without any need for mathematics. However, computer simulation and mathematical formalism are important for demonstrating that the basic principles are not sufficient in themselves for explaining empirical data. Subtle arguments show that further ingredients must be added to the models to make them work, and these arguments lead to predictions that can be tested experimentally.

Fortunately, the experimental methods available to neuroscientists are developing rapidly, driven by the convergence of molecular genetics, imaging, and computation. In the future, it will become possible to test the principles of neural network theory in more direct ways. In particular, Seung will discuss the implications of the imminent transformation of neuroanatomy into a high-throughput science called "connectomics."

Finally, this year's meeting will include what many will likely consider an unusual and thought-provoking discussion during our Public Advocacy fForum. It features Andy Grove, former chief executive officer of Intel — the world's largest semiconductor manufacturer — and *Time* magazine's 1997 Man of the Year. The forum, "Translating Neuroscience: Can Systems Engineering and Lessons from High-Tech Take Us Beyond the R01 Culture?" is scheduled for Sunday, Nov. 4, at 1 p.m. The forum will be moderated by John Morrison, chair of SfN's Government and Public Affairs Committee.

As a strong advocate for accelerating the pace of biomedical research, Grove will discuss both the promise and the limitations of a new, unified systems engineering model for effectively translating basic neuroscience into new ways to fight brain disorders. He will also address how scientists can move the field forward by looking at their research from new perspectives and through building highly integrated, massive efforts that are disease focused. The relationship between such "big science" efforts and the currently dominant investigator-driven research model will also be discussed. A panel of leading SfN members working on experimental therapeutics will discuss the potential for solving biological problems by "thinking outside of the box," engaging business leaders in the research process, and changing the paradigm in which neuroscience research is conducted.

Each of these speakers provides a unique passion and perspective about neuroscience that challenges the traditional methods neuroscientists have used in research and, as in the case of Andy Grove, even questions the organization of the research enterprise. They encourage us to embrace new technologies and ideas that promise to make the conduct of research more productive and, ultimately, result in the discoveries that will transform our ability to understand and treat disorders of the nervous system. I urge you to attend as many of these sessions as you can. And think about ways that your own research can better capitalize on the powerful opportunities represented by new technologies that offer great promise for the future of neuroscience.

For more information on these events and general information about Neuroscience 2007, visit www.sfn.org/am2007. ■

New Editor-In-Chief, continued from page 1

Maunsell earned his PhD in biology at the California Institute of Technology in 1982 after completing a BS in zoology with honors at Duke University in 1977. He was a postdoctoral fellow at the Massachusetts Institute of Technology and held faculty positions at the University of Rochester and Baylor College of Medicine before joining Harvard in 2006. He has been an investigator with the Howard Hughes Medical Institute since 1997.

"I am grateful for the confidence placed in me by the SfN Council and the search committee," said Maunsell. "*The Journal* is one of the most important and prestigious journals in the field of neuroscience. There is something special about a high-quality, non-commercial society journal published by and for working scientists, and I am excited to take on the opportunity and the challenge of enhancing *The Journal's* considerable strengths."

Maunsell's research focuses on understanding how attention influences the representation of sensory information in the cerebral cortex and how these changes improve behavioral performance. Maunsell's awards include a National Institutes of Health Postdoctoral National Research Service Award, an Alfred P. Sloan Fellowship, and a McKnight Foundation Development Award. ■

Biomedical Research Funding, *continued from page 17*

on our Web site, www.healthtransformation.net. To summarize, though, we argue in the paper that a renewed commitment to NIH is warranted for four fundamental reasons:

First and most fundamentally, every day, past medical innovations help millions of Americans across the nation, in every community, in every state and every district. On that basis, policymakers should view funding NIH as an investment in our nation's future, rather than a fiscal burden.

Second, as I suggested above, we argue that the recent "start-stop" funding approach has hindered efficient research planning, slowed the rate of progress, and discouraged young scientists from entering or remaining in basic research.

Third, we present recent evidence that we think strongly supports the case that the Federal Government is still under-investing in biomedical research. The best economic analysis indicates that Americans value the resulting benefits of biomedical progress many times more than the amount the federal government invests to support this work.

Finally, we argue that that this investment makes sense on economic grounds as well. Investment in basic biomedical research also benefits America by stimulating the biotech industry, one of the most strategic components of the nation's economy.

Together, we think these make a very compelling case for strong, steady basic research funding. We'll be working hard in the months ahead to make this case, and we look forward to working with those in the research community to do so. ■

NIH Bluprint Spurs Innovation, *continued from page 14*

September 2007. Researchers are invited to nominate publicly available resources, and data for inclusion by e-mailing NIH project officer Karen Skinner at kskinner@nida.nih.gov, with the subject heading "NIF Resources." A neuroinformatics social at the 2007 Society for Neuroscience meeting will feature brief presentations about the NIF and other ways the NIH supports neuroinformatics, and a Blueprint-sponsored satellite symposium will cover "The Rhyme and Reason of Data Sharing." ■

Letters to the Editor

NQ welcomes reader responses to articles that appear in the newsletter. If you would like to respond to an article or idea appearing in NQ, please send an e-mail to nqletters@sfn.org. The editors of NQ reserve the right to select letters for publication and will edit them for style, length, and content.

— The Editors

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