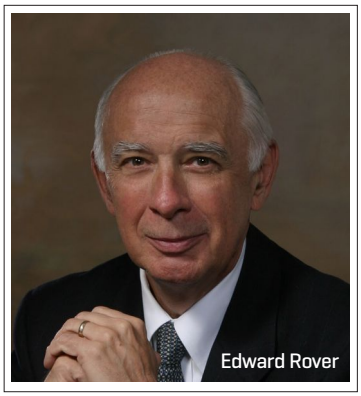
DANA ALLIANCE NEWS

June 2015

DANA ALLIANCE EXTENDS INTERNATIONAL MEMBERSHIP AND OUTREACH ACTIVITY


Edward Rover

Since its inception in 1992, the Dana Alliance for Brain Initiatives (DABI) has focused its membership on neuroscientists from North America. The European Dana Alliance for the Brain (EDAB), founded in 1997, similarly has drawn its membership from the European neuroscience community. In January, **Edward Rover,** chairman of DABI and EDAB announced the formal expansion of the Dana Alliance to include neuroscientists worldwide.

"The time definitely has come when we must recognize scientists across the globe and embrace the concept that critical research and public outreach are not limited, and should not be limited, to geography," said Rover.

Under the new plan, all current EDAB full members also became DABI members as of January, 2015. To ensure a broad international representation, the DABI Executive Committee and the Membership Committee were expanded to include four members of the current EDAB Executive Committee: **Pierre Magistretti** (Switzerland), **Eva Sykova** (Czech Republic), **Richard Morris** (Scotland), and **Wolf Singer** (Germany). They join **Sir Colin Blakemore** (United Kingdom), a longtime DABI and EDAB Executive Committee member.

While EDAB members are now part of the larger international organization, EDAB as an entity will retain its identity as the Dana presence in Europe, continuing its public outreach and its ongoing relationships with the Federation of European Neuroscience Societies (FENS), and other European neuroscience societies and partners, as well as with the International Brain Research Organization (IBRO). **Pierre Magistretti** is the current president of IBRO and several members of EDAB sit on FENS committees.

Sir Colin Blakemore said, "EDAB will continue to maintain and develop programs in its own distinct manner, while also strengthening its efforts to secure greater funding for European neuroscience. But, we also will bring to the expanded international Alliance organization our experience in public activities and relations with the media, as we reach out to colleagues worldwide."

EDAB AND THE INTERNATIONAL NEUROETHICS SOCIETY PRESENT SYMPOSIUM

At the April 2015 British Neuroscience Association (BNA) Festival of Neuroscience in Edinburgh, Scotland, EDAB and the International Neuroethics Society (INS) jointly presented a neuroethics symposium, "Drugs, Addiction and Freewill: Do Addicted Individuals Have Free Will?"

The panel, which was moderated by INS President, Barbara Sahakian and included UK-based Alliance members **Trevor Robbins**, University of Cambridge, and **David Nutt,** Imperial College, discussed the science and the ethical aspects of drug addiction. Read our coverage of the event in the article, "How Should Society Treat Addiction?"

This symposium was the fifth EDAB/INS collaboration presenting neuroethics symposia in Europe.

In this Issue.....

BRAIN AWARENESS WEEK CELEBRATES 20 YEARS OF EDUCATION AND OUTREACH ABOUT THE BRAIN

Brain Awareness Week's 20th anniversary campaign was a great success, with 782 partner events in 51 countries and 41 states posted on the Dana Alliance's BAW Calendar of Events. Celebrations in communities across the globe featured lectures, school programs, social media campaigns, art competitions, lab tours, exhibitions, film screenings, plays, fairs, and much more. Visit the Partner Reports and Photo Gallery sections of the BAW website for more information on this year's imaginative events.

To mark the 20th anniversary, the Dana Foundation published a wonderful article that revisited BAW's history–from its modest beginnings as an effort of just 160 organizations and institutions in the United States to its position today as a powerful, global education initiative that spans six continents. Since its founding by the Dana Alliance in 1996, the campaign has included the participation of more than 4,800 partners in 100 countries. An accompanying video looked back on BAW's 20 years of public outreach about the brain through photographs from partner events worldwide. The video also promoted participation in the campaign, directing viewers to the BAW website to register as partners or to find events in their areas.

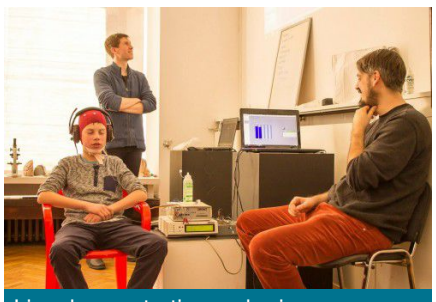
The celebration continued on the Brain Awareness Week Facebook page, where "Throwback Thursday" posts were introduced: Every Thursday during the BAW season, a post featured a photograph, partner interview, or other resource from a past campaign. An effort called "Take 20 Seconds for the 20th Anniversary" also was launched, asking partners to create 20 second videos that captured highlights from their BAW celebrations and to post them on Facebook. Partners answered the call, posting videos from events in Russia, Serbia, Uruguay, Turkey, Armenia, Spain, and the United States. Please be sure to "like" our page to check out these and other posts. As a result of this new social media outreach, the BAW Facebook page added more than 2,000 fans during the BAW season; the page now has more than 11,200 fans.

Leading up to BAW, the Dana Foundation blog featured three interviews with partners to share their experiences and provide ideas and advice on planning successful events. Included among them was Alliance member **Spiros Efthymiopoulos**, for his work with the Hellenic Society for Neuroscience, a long-time BAW partner and winner of the 2015 EDAB-FENS Brain Awareness (BAW) Excellence Award. A series of "BAW Across the Continents" blogs closed out the 20th anniversary celebration, offering highlights from partner events around the globe.

The Dana Alliance would like to thank all of its members for their continued support of the BAW campaign. We look forward to the next 20 years!

Mark your calendars! The next Brain Awareness Week is March 14-20, 2016, and it's never too early to start making plans! BAW is a wonderful opportunity to get involved in the programs of the Dana Alliance and to help advance our mission to increase public understanding of the progress and benefits of brain research Visit the BAW website for suggestionson how to get involved, and be sure to connect with us on Facebook for the latest announcements, ideas, resources, and advice.

Neuroanatomy lessons at the Harvard Graduate School of Education, Massachusetts.

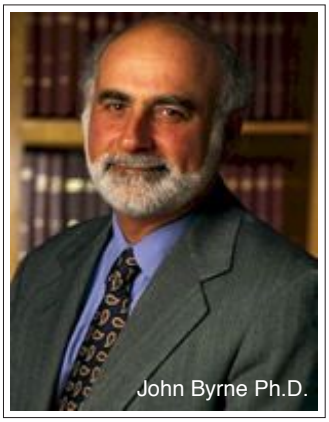


Live demonstration on brain waves while listening to music at the University of Belgrade, Serbia.

Brain art displays at the 4th Public Junior High School of Pyrgos Ilias, Greece.

Brainy the robot at the local mall hosted by Edinboro University, Pennsylvania.

MEMBERS' VIEWS: JOHN H. BYRNE


John Byrne Ph.D.

John H. (Jack) Byrne, Ph.D., is the director of the Neuroscience Research Center (NRC) at The University of Texas Health Science Center at Houston (UTHealth). He is also the June and Virgil Waggoner Chair and professor and chairman in the department of neurobiology and anatomy at The University of Texas Medical School at Houston.

QUESTION: Your lab recently made progress into unravelling the mystery of "the spacing effect" of learning. Can you describe the goal of the study and what you found?

ANSWER: Spaced training, where individual learning sessions or training trials are separated in time, has been widely established since the seminal work of Ebbinghaus (1885) to be superior to massed training, where the same number of trials are either given continuously or separated by very short intervals. Although many attempts have been made to optimize the spacing effect, they have been based on trial-and-error approaches and without an underlying mechanistic underpinning. Consequently, most—if not all—training protocols used in animal and human studies are probably non-optimal. Recently, it has become increasingly clear through our work and work from many other laboratories that the improvement of learning found with spaced training protocols can be explained, at least in part, by the dynamic relationships between the training trial and the underlying cellular, molecular, and morphological mechanisms associated with memory formation.

Our study asked whether the inverse is possible. Can knowledge of the dynamics of memory mechanisms predict optimal training protocols? We used long-term sensitization of defensive reflexes of *Aplysia* as a model system because much is known about the signaling cascades for the induction of long-term memory (LTM) through the work of **Tom Carew**, **Eric Kandel**, Kelsey Martin, Wayne Sossin, and their colleagues. A mathematical model of the biochemical cascades predicted that a novel training protocol with irregularly spaced trials would enhance learning and LTM by maximizing the synergistic activation of the cascades. Empirical studies confirmed the predictions of the model. The "enhanced" training protocol produced greater long-term synaptic facilitation (LTF) and greater LTM than the standard protocol.

We next asked, if irregularly spaced protocols can enhance normal learning, might modeling also predict protocols that restore learning impaired by a genetic mutation or by other physiological insults? We used siRNA techniques to knock down the expression of CBP protein and thereby mimicked the deficits in long-term synaptic plasticity associated with Rubinstein-Taybi syndrome. Simulations predicted that a "rescue" protocol with irregularly spaced intervals would restore LTF, a prediction that was confirmed empirically.

"Our work shows that an alternate, although not mutually exclusive, way to improve memory is to develop novel training protocols…"

QUESTION: What are the next steps in this research?

ANSWER: Our studies were done with the invertebrate *Aplysia.* However, progress in understanding memory mechanisms has been greatly aided by the property that key molecular mechanisms of memory are substantially conserved from simple model organisms like *Aplysia*, where synapse-specific changes can be identified with particular forms of learning and predictions can readily be tested empirically. The results with *Aplysia* suggest that for some molecular lesions leading to deficits in long-term potentiation (LTP) and LTM, it may be possible in more complex organisms, including mammals, to computationally predict efficacies of numerous alternate learning or training protocols. This is a process that is impractical using empirical studies alone.

QUESTION: Long term, how do you see this research influencing the broader field of memory disorders?

ANSWER: The first priority in treating memory disorders is to identify the molecular lesion(s) and correct it. A second approach is to use pharmacological approaches to target key molecules involved in LTM formation. Our work shows that an alternate, although not mutually exclusive, way to improve memory is to develop novel training protocols that are in phase with the dynamics of the biochemical signaling cascades within neurons. This approach has numerous possible applications, including developing models of other memory systems, which in turn can be used to predict training procedures that improve human cognition and ameliorate cognitive impairments related to biochemical or genetic deficits. Moreover, combining pharmacological approaches with optimized spaced-learning protocols might yield even better outcomes.

QUESTION: The BRAIN Initiative has emphasized the importance of investing in brain research and the need to accelerate discovery. In response, The University of Texas System has created funding opportunities for local neuroscientists. Can you please tell us a bit about these programs?

ANSWER: In 2014, the NRC and the UTHealth Center for Clinical and Translational Sciences created the UTHealth BRAIN Initiative. From a pool of 23 applications, this program provided $50,000 to each of eight innovative seed grant projects from UTHealth Medical School faculty. These grants will allow our researchers to collect preliminary data they can use in proposals for the federal neuroscience initiative. The funds will also facilitate collaborative efforts in the neurosciences amongst UTHealth and local institutions such as Baylor College of Medicine, Rice University, and the University of Houston.

MEMBERS' VIEWS: JOHN H. BYRNE CONTINUED

In addition to our announcement, the UT System has also created its own seed grant funding opportunity to align trans-institutional, multi-disciplinary research partnerships and teams to be competitive for future funding opportunities of the national BRAIN Initiative. This program, spearheaded by Patti Hurn, UT System Vice Chancellor for Research, and Tom Jacobs, Associate Vice Chancellor, is expected to award approximately $5M in total funding for up to 50 applicants. The UT System is considering additional initiatives, which include: creating a national recruitment initiative to recruit young leaders in neurotechnology research to Texas; creating a neurotechnology development fund; hosting Texas BRAIN meetings of different types for different purposes; promoting UT centers committed to advancing studies in human subjects; and providing direct funding streams for planning meetings to help build research partnerships and teams.

"It is imperative that the community generally understands how the brain works..."

QUESTION: **You've been a long-time Brain Awareness Week (BAW) participant, and the NRC's "Brain Night for Kids" has been a mainstay through the years. Why is it important to expose students to neuroscience at a young age?**

ANSWER: Scientists are not the only ones with a "thirst for knowledge"; it is universal and it starts at an early age. Children in particular seem fascinated by what is inside their skulls. As scientists we need to do everything we can to satisfy their appetite and refine it. And, there is a connection to Ebbinghaus: the sooner we start the exposure, the stronger the memory will be after the next exposure.

I admit that there is something selfish about it as well. The glow in the eyes and wonderment of a third grader upon first touching a real brain keeps me energized and is a reminder of why I became a brain scientist and a member of DABI.

QUESTION: **On the other end of the spectrum, you've been a panelist for DABI's Staying Sharp program several times. What do you think are the most important takeaway messages for this senior audience concerned with maintaining cognitive health?**

ANSWER: The thirst for knowledge continues as we age, but is now more refined and questions become more directed at personal health. This area is far from my research program (my contribution to the programs has generally been to explain how neurons and memory work), but from what I have learned, you cannot go wrong with grandma's advice about eating healthy and exercising. You can add to that staying married and socially engaged.

Although the old standby "use it or lose it" is catchy and still encapsulates current thinking, audiences are looking for more these days. For example, how much should they exercise and what type of exercise and intellectual activity should they pursue? And what specific diet should they follow? Clearly, we need to go beyond the observational studies and learn more about the ways in which these factors affect cognitive mechanisms. With that in mind, an important takeaway is that neuroscientists are making great progress in understanding the brain and how it works, and they will be able to exploit this knowledge to develop optimal and more rational approaches to cognitive health.

"Scientists are not the only ones with a 'thirst for knowledge'"

QUESTION: **In addition to your participation in BAW and Staying Sharp, you champion public education and outreach programs at the University of Texas. The community benefits from the expertise of your staff, but how have these programs been beneficial to your institution?**

ANSWER: Although the main goals of our programs are selfless, UTHealth has benefited greatly from the generosity of our tireless volunteers made up of graduate and medical students, postdoctoral fellows, and faculty members. As a researcher, it is important to understand which issues are most important to the public and what their level of understanding is. It is imperative that the community generally understands how the brain works, or at least that neuroscience research needs their support. Interacting with the public through these programs allows us to better understand their concerns and to provide them with useful information. Along the way, UTHealth has become a trusted resource in brain health, at the local level.

Recently, our 20th annual public forum, "The Brain on Drugs," caught the attention of Congresswoman Sheila Jackson Lee who attended the event and participated in the discussion. The lively debate on drug addiction allowed neuroscientists, a national politician, and community members to exchange views. Congresswoman Lee learned more about our Center, and at the event's conclusion she publically praised UTHealth for our research efforts to understand the brain and for our outreach efforts to help inform the public about advances in brain research and understanding brain disorders. That was an event with benefits that can't be measured.

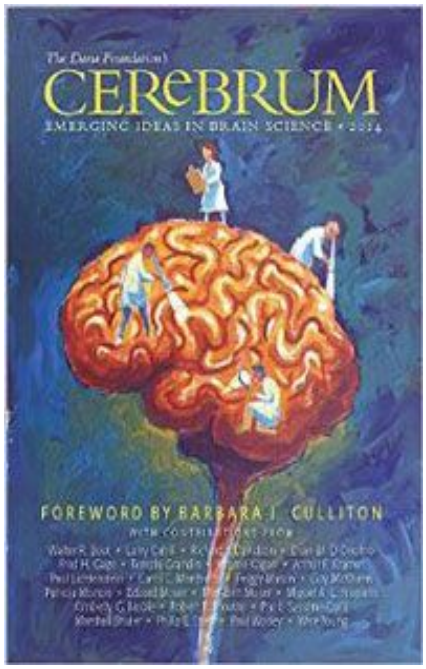
2014 CEREBRUM ANTHOLOGY AVAILABLE NOW

In March, the Dana Press published *Cerebrum 2014*: *Emerging Ideas in Brain Science.* The anthology is a way for readers to discover the entire list of articles and book reviews from the previous year without having to go online and link to each individually. It also includes bios and photos of the authors and an index.

William Hogan, noted painter and former illustrator for *The Bergen Record*, illustrated the book's cover (of scientists in lab coats exploring and probing a human brain). Former *Science* editor Barbara J. Culliton wrote the Foreword, providing perspective on the current state of neuroscience, and also the issues that especially resonated with her in the anthology's articles.

Some of the world's best known neuroscientists in their specialty areas contributed articles. Alliance members **Edvard and Britt-May Moser** of Norway's Kavli Institute, who contributed the March article, "Mapping Your Every Move," won the Nobel Prize for Science or Physiology a few months after their article appeared. Other authors include Alliance member **Fred "Rusty" Gage** (stem cells), Miguel Nicolelis (brain-to-brain interface), Larry Cahill (sex difference in the brain), and Peggy Mason (empathy). Books were reviewed by Temple Grandin and Alliance member **Jerome Kagan.**

Last year's anthology was named to the recommended reading list by *Scientific American Mind* and *PsycCritiques* wrote that "the authors, among the most prominent researchers on each of the topics, present new material and thought-provoking interpretations." The book, which was edited by *Cerebrum* editor Bill Glovin, includes all of his editor's notes that accompany the articles.



DANA AWARDS GRANT TO THE ROYAL SOCIETY TO CREATE UK NEUROSCIENCE AND THE LAW PROGRAM

The Royal Society Brain Waves Project (2010-2012), chaired by EDAB Vice Chairman Sir Colin Blakemore**,** explored how brain and nervous system research could provide significant benefits for society. One aspect of the project focused on neuroscience and the law, and after several years of discussion, the Dana Foundation and the Royal Society have agreed on a concept for continuing this work.

With support from Dana, a series of seminars and courses will be developed for judges, lawyers, and scientists in the UK on imaging in court; the influence of emotion in appraising evidence; addiction; and brain injury.

The program is expected to be implemented over three years. A judicial seminar program for state and federal judges is already in effect in the United States, funded by Dana and coordinated by the American Association for the Advancement of Science.

DANA LIBRARY AND RESEARCH CENTRE ANNOUNCED BY THE SCIENCE MUSEUM

The Science Museum in London has officially announced the new Dana Library and Research Centre, opening in late 2015. As envisioned by the Science Museum, the new Centre will provide a "world class environment" for academic research and it will be open to the public as well. Renovation is now underway at the former Dana Centre, which opened in 2003 and provided public events about the latest in science research.

For academic research, the Centre will focus on bringing together the Museums' library and archive collections, as well as artifacts, through its Research and Public History Department. The facility will be open to the public and include special events aimed at reaching broad audiences.

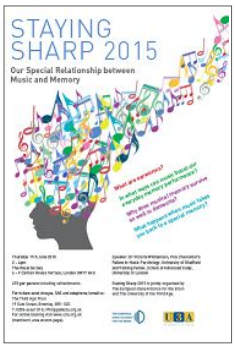
Edward Rover, chairman and president of the Dana Foundation said, "We are delighted that the Library and Research Centre preserves the Dana name. We have a longstanding relationship with the Science Museum and the focus of the new facility is in keeping with Dana's mission and commitment to the importance of scientific inquiry and public education."

AAAS/DANA NEUROSCIENCE AND SOCIETY EVENTS DRAW ON ALLIANCE EXPERTISE

In partnership with the American Association for the Advancement of Science (AAAS), the Dana Foundation hosts the Neuroscience and Society public series in Washington, DC. The first event of 2015, held in March, "Tangled Up in Blue: The Complexity of Chronic Pain," featured Alliance member **Edward Bilsky**. Other speakers included David Borsook, Boston Children's Hospital; David Thomas, National Institute on Drug Abuse; and Cindy Steinberg, U.S. Pain Foundation. The webcast from the event is available on the Foundation's YouTube channel. Neuroscience and Society events from prior years also are available.

The second in the series, "Child Development—from Birth to Two Years," is scheduled for June, and Alliance member **Pat Levitt** will be the lead speaker. The event will also be recorded for a webcast. The final two programs for the year will be held in September and in late fall and are in the process of being developed.

STAYING SHARP IN THE US AND UK



Over the last 20 years, the Dana Alliance has presented Staying Sharp programs in the US, and more recently in the UK, that inform audiences about how to maintain a fit and healthy lifestyle as they age. This summer, we continue this wide-reaching initiative by offering two sessions: in London, UK, and in Kansas City, Kansas.

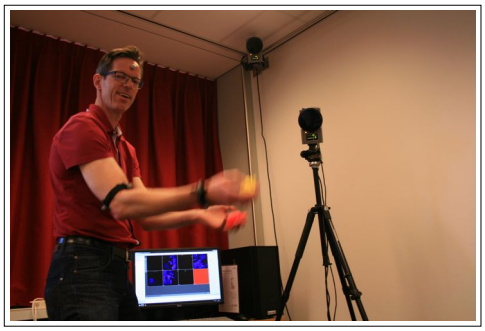
EDAB and the University of the Third Age (U3A) have partnered on several Staying Sharp events, and the next one, "Our Special Relationship Between Music and Memory" with Victoria Williamson, will take place on June 11 at The Royal Society in London. Dr. Williamson's research focuses on "applied music psychology"; how music impacts our behaviors, abilities, and brain responses; and how we can best interact with music to support our activities in the real world.

Previous EDAB and U3A sessions have included: "Enrich Your Future–It's Not the Years in Your Life but the Life in Your Years"; "Technology, Well-being, and the Brain"; and "The Rhythms of Life–How Our Biological Clocks Tick" with Alliance member **Russell Foster**, a sleep and circadian neuroscience specialist.

Kansas City will be the host city to our 48th US Staying Sharp program, which will happen on June 13. DABI is partnering with the local AARP state office, and participating panelists are from the University of Kansas Alzheimer's Disease Center; Kansas University Medical Center Neurodegenerative Disorders Program; the Center for Neurology and Cognitive Neuroscience at Truman Medical Center; and the University of Missouri-Kansas City School of Medicine. The session will be moderated by the local TV anchor at WDAF-TV Fox 4.

In related news, the Institute of Medicine (IOM) recently released a report on cognitive aging, which was sponsored by AARP. Alliance members **Marilyn Albert, Ph.D.**, and **John Morrison, M.D.**, who have participated in numerous Staying Sharp events, served on the report committee. All of the key features of the IOM report are included in Staying Sharp's messages, in particular aging's positive effects on cognition, like wisdom, and the significance of individual actions, such as becoming more physically active to help maintain cognitive health. The report has ignited a new enthusiasm for Staying Sharp, and AARP and the Dana Alliance will together identify ways to improve the program with the report's findings. For example, the report encourages the expansion of programs aimed at educating aging adults about sound decision making in regards to financial decision-making and driving, topics that are not currently included in the Staying Sharp program.

IN THE LAB



Harold Bekkering is professor of cognitive psychology at Radboud University Nijmegen, and Board member of the Donders Institute for Brain, Cognition and Behaviour in the Netherlands. His research focuses on the perception and production of goal-directed actions, particularly in the context of social interaction.

QUESTION: **What motivates you?**

ANSWER: The talented young people in my group inspire me with either the ideal data graph—indicating that our experimental thinking was absolutely correct, or with the ultimate research idea on how to challenge our view of human interaction in a complex social world. Without them, I definitely would spend fewer hours on science.

QUESTION: **What is your favorite piece of lab equipment?**

ANSWER: On some days, it's fancy neuroimaging equipment like fMRI or MEG. On other days, I just love to see a nice eye movement registration indicating exactly where somebody was looking, even though the person in question did not realize it. Eye movements as a window to the mind still does it for me, as well as body-movement registration.

QUESTION: **What is your guilty pleasure?**

ANSWER: I have most guilty pleasures at conferences. Staying out late with the group, including dancing and drinking, makes me feel alive and young—until the day after.

QUESTION: **If you could have lunch with any scientist, past or present, who would it be and why?**

ANSWER: I just read the biography of Albert Einstein by Walter Isaacson, and was fascinated by his rebellious nature. I would particularly like to ask him about his later years when quantum physics challenged his ideas about the cosmos and yet he deeply believed his own thinking was still right.

QUESTION: **What encouraging words would you give to young people considering a career in neuroscience?**

ANSWER: All the main mechanisms of human cognition regarding memory, decision-making, and action are yet to be discovered, and it takes innovative minds to do so—so please join us!

QUESTION: **Last year you gave a lecture at Aloysius Den Haag Secondary School, "Homework, how to motivate my child." Please explain briefly, how it's done.**

ANSWER: I am very motivated to discuss recent insights from neuroscience for education. That evening, I discussed ideas about the frontal cortex in the light of perspective-taking and planning capabilities, urging parents and teachers to treat teenagers as autonomous agents rather than underdeveloped brains. At the beginning, this message was not what they were hoping for, since it involved communicating with this peer-oriented age-group. In the end, though, they understood my message. I found it very rewarding and went home happy.

DOWNLOADABLE PUBLICATIONS, TRANSLATIONS, AND RESOURCES ON DANA.ORG

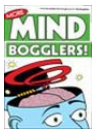
New: *Q&A: Answering Your Questions About Brain Research*
A pamphlet that provides the answers to commonly asked questions about the brain and its disorders.

New: Q&A One-page Fact Sheets based on content from the Q&A pamphlet above:
How Does the Brain Work?
How Does the Brain Develop?
How Does the Brain Connect Us to the World?
How Do We Learn and Remember?
What Happens When the Brain Is Injured?
What Are Neurodegenerative Diseases?
What Happens to the Brain in Mental Illness and Addiction?

New: *Staying Sharp—Ask the Experts: Successful Aging and the Brain*
We all know people who seem to blossom after 50, or stay sharp into old age. What can we learn from them? Find out what steps you can take to improve your brain fitness, regardless of your age.

New for Neuroscientists: Communicating with Policymakers
Guidelines for general interactions with policymakers in your home state or at institutional research laboratory tours

It's Mindboggling!
A booklet packed with information about the brain in a fun format of games, riddles, and puzzles for elementary and middle school students. Available in English, Spanish, Flemish, French, German, Italian, Turkish



More Mindbogglers!
This booklet for elementary and middle school students takes a closer look at learning and memory, the senses, drug addiction, and how the brain and nervous system work. Available in English and Turkish.

Mindboggling Workbook
A fun-filled activity book about the brain for children ages 5-9 that provides an introduction to how the brain works, what the brain does, its importance, and how to take care of it. Available in English, Turkish, and Portugese

ALLIANCE MEMBERS' AWARDS, HONORS, APPOINTMENTS

Alexandru Calin (Romania) was awarded The Sherrington Prize in Neuroscience, for outstanding achievement in Neuroscience MSc (2013-2014), University of Oxford.

Patricia S. Churchland, Margaret S. Livingstone and **Kay Redfield Jamison** have been elected as members of the American Academy of Sciences.

Joseph T. Coyle (USA) gave the Julius Axelrod Award Lecture keynote address, "Cortical disconnection and the pathophysiology of schizophrenia," at the National Institute of Health on April 15. Members **Thomas Insel** and **Solomon Snyder** also participated in the symposium.

Martha Bridge Denckla (USA) is the 2015 Honoree of the Society for Behavioral and Cognitive Neurology presented to a senior member of the profession who has made significant contributions to the field of behavioral and cognitive neurology.

Judy Illes (Canada) was elected to serve as the President of the International Neuroethics Society (INS) beginning in February 2016.

Russell Foster (UK) In the 2015 New Year's Honours List, Russell Foster, Brasenose College, Oxford, was appointed CBE (Commander of the British Empire) for his services to science.

Martin Korte (Germany) was awarded the Ars Legendi Prize for Excellence in University Teaching in the category of Life Sciences for engaging in teaching in an outstanding way.

Alan I. Leshner (USA) was honored by AAAS with the naming of the Alan I. Leshner Institute in Public Engagement with Science for his work "in public outreach and creating a dynamic dialogue with the public about science and technology's benefits and pitfalls." The institute will focus on climate change as its inaugural topic in 2016 and will train 15 mid-career scientists per year to develop public engagement activities in their communities through an intensive curriculum.

Oscar Marin (Spain) was awarded the 2014 De Spoelberch Prize in April for "understanding the aetiology of neuropsychiatric illness through neural circuit interrogation in animal models."

Carol A. Mason (USA) was elected to the Dana Alliance Executive Committee in April.

Helen S. Mayberg (USA) was awarded the Cura Personalis Award from the Georgetown University Medical Center; the Paul D. MacLean Award from the American Psychosomatic Society; and the Distinguished Service Award from the American Psychiatric Association. She was also named the Robert Wartenberg Lecturer from the American Academy of Neurology.

Julien Mendlewicz (Belgium) was elected an Honorary Member of the Belgian College of Neuropsychopharmacology and Biological Psychiatry in January.

Geoffrey Raisman (UK) was awarded an Honorary Degree by Middlesex University (presentation in July) and the 2014 Step by Step Award, given by the StepbyStep Foundation in Barcelona, Spain.

James W. Simpkins (USA) was selected as one of the Claude Worthington Benedum Distinguished Scholars 2014-2015 for his work "discovering novel compounds for the treatment of stroke and age-related brain disorders, including Alzheimer's disease." He will receive $5,000 in professional support and will present a public lecture in fall 2015.

Wolf Singer (Germany) was given the Max Planck Communitas Award in February.

Rudolph Tanzi (USA) was named by *TIME Magazine* as one of the world's top 100 most influential figures for his work on finding a cure for Alzheimer's disease.

Lord John Walton (UK) in November 2014 was a principal guest at a major symposium at which the University of Newcastle upon Tyne International Centre for Research into Muscular Dystrophy was renamed the John Walton Muscular Dystrophy Research Centre. International collaborators and fellows from around the world who had worked with him attended.

DANA ALLIANCE MEMBER ACTIVITIES

Pavle Andjus (Serbia) gave a BAW lecture, "Nobel Laureates: Hodgkin and Huxley for All Times," at the Serbian Academy of Sciences and Arts. In November-December, he organized a week-long IBRO international school, "Toward the International Year of Light and Light-based Technologies 2015."

Fabrizio Benedetti (Italy) in February gave a lecture, "Errors and Perceptual Illusions in the Doctor-Patient Communication," and in November participated in the TV program, "The Placebo Effect," on Arte TV in France and Germany.

Edward J. Bilsky (USA) coordinated the March 11 University of New England Brain Fair, attended by about 250 children and adults. At the event, families were invited to explore neuroscience, especially as it applies to brain safety and athletics through various activities. The fair was covered by WMTW ABC 8 News. Dr. Bilsky coordinated and hosted the Brain Blast with PechaKucha-style talks on March 11 at a local art gallery, highlighting the impact neuroscience has on our daily lives. He also participated in UNE School Visits (January-April) and supervised students teach outreach modules to K-12 students. UNE Center for Excellence in the Neurosciences K-12 Education Outreach Program reached over 1,000 K-12 students during 18 school visits to local classrooms from January-April.

Floyd E. Bloom (USA) presented a talk about reproducibility in science, "Biomedical Ethics Seminar Two-Part Series: Replication and Trust in Science: What does the Haruko Obokata (STAP) case tell us?" at the San Diego Center for Ethics in Science.

John H. Byrne (USA), director of the Neuroscience Research Center (NRC) was involved in its annual BAW event, Brain Night for Kids, attended by over 250 children on March 19 at The Health Museum in Houston, Texas. He also helped organize the 20th Annual Neuroscience Research Center Public Forum, "The Brain on Drugs," held on April 11 and attended by approximately 200 people. Congresswoman Sheila Jackson Lee attended the event and participated in a lively discussion with neuroscientists and community members. For a fourth year, the NRC welcomed high school students from the Worthing Rice Apprentice Program to tour the Dr. Byrne's laboratory, allowing them to study neuroscience with Rice students and faculty.

Herbert Budka (Austria) in April, with Seth Love, Arie Perry, and James Ironside, edited the ninth edition of Greenfield's Neuropathology, published by CRC Press.

Alexandru Calin (Romania) participated in the BAW "Inside the Brain" event at the Museum of the History of Science in Oxford, UK, where he and his colleagues engaged with 1,000 visitors each day.

Synnöve Carlson (Finland) in February gave a lecture, "How the Brain Functions," in Helsinki, organized by Kluuvi Rotary Club, Helsinki. She also organized the BAW lecture, "The Navigating brain: From place cells to rehabilitation of impaired memory," in Helsinki. Her article, "How long does it take for a short-term memory to turn into long-term memory?" was published in the Tiede-lehti; Sanoma Media Finland Oy, on 11/2014; as well as in Duodecim 2014.

Carmen Cavada (Spain) in January participated in a public symposium, "Santiago Ramón y Cajal. A Legacy for the XXI Century," at the Royal National Academy of Medicine. In April, she participated in "Impact of the External Milieu onto Our Brains," a public dialogue with **Pasko Rakic** at the Foundation Tatiana Pérez de Guzmán el Bueno.

Marina Chernisheva (Russia) in December had her book, *Temporal Structure of Biosystems and Biological Time*, published by Napisano Perom, St. Petersburg.

Hervé Chneiweiss (France) in January gave a lecture, "The Improved Brain" ("Le Cerveau Augmenté"), at the Université Nanterre Paris; and spoke at several neuroethics conferences, including in Vilette Cité des Sciences Paris for the Human Brain Project, and at the Rouen Association Science & Partage "Ethical Questions Arising From Neuroscience." He also participated in two BAW events: at ENS Lyon, "Ethical Questions About Personalised Medicine" and in the France Inter radio program, "The Clever Head" in "The Brain Plasticity."

Christina Dalla (Greece) gave a BAW lecture to Kindergarten children, "Good Morning Mr. Brain," about the brain's structure and function and similar topics, organized by the Hellenic Society for Neurosciences, Athens. In March, she gave a lecture, "Antidepressants: Myths and Reality," at the Athens Science Festival in Technopolis, Gazi.

Emanuel DiCicco-Bloom (USA) commented on "Chasing Down an Immune Protein in the Brain Could Shed Light on Autism" presented on NPR WHYY Philadelphia online. He gave a talk "Autism Spectrum Disorders: Tales from the Mouse" to Seton Hall University community on February 12 and presented a seminar with the same title to the more than 300 science class students at West Windsor-Plainsboro High School South on March 31 and subsequently blogged about by the teacher. On March 26, DiCicco-Bloom visited the offices of Senators Cory Booker, Robert Menendez, Representatives Thomas MacArthur, Bruce Poliquin, Carolyn Maloney, and Leonard Lance as a participant in SfN's Capitol Hill Day.

Robert Filipkowski (Poland) in October gave a lecture, "Using Light in Neuroscience," to children and their parents at the Culture and Neuroscience Conference and Workshop in Warsaw, organized by Karolina Wiktor, a visual artist who had two strokes and aphasia. He gave two other lectures in Warsaw: in November, "What Are New Neurons for in an Old Brain?" at the Nencki Institute, and in December, "Looking for the Role of New Neurons," at the Faces of Neuroscience Project.

Tamás F. Freund (Hungary) gave four lectures: "The Hungarian National Brain Research Program" at the Hungarian Cultural Centre's symposium; "Neuroscience and Scientists—the Hungarian Experience," in London, UK; "The Effect of The Information Explosion on Memory and Creative Thinking" to investors in Budapest; and in March, "The Power of Mentoring in a Scientist's Career" at a ceremony for Oxford Scholarship winners in Szentendre in March. He also gave an interview about the Hungarian Brain Research program on national TV-ATV, Friderikusz.

Paul W. Glimcher (USA) hosted an apprentice workshop for the World Science Festival on May 30. Students learned about decision science and how to create and run an experimental task in an fMRI scanner. He also published an article in *Frontiers for Young Minds*, "Are adolescents really risk-takers? Most adults say yes, but the science is starting to say no."

Inga Griskova-Bulanova (Lithuania) in February gave a BAW lecture, "Electrical Brain Activity: Is That a Language We Understand?" *Spectrum Journal* published her article on brain research methods and practical applications, and she gave a radio interview to Žiniu Radijas about the article.

Agnes Gruart i Masso (Spain) in February gave an interview to the online program "Outstanding People, Andalusian Stories." She also participated in Andalusian TV Canal Sur program, "Updating Health," on the effects of biological rhythms in health.

DANA ALLIANCE MEMBER ACTIVITIES CONTINUED

Riitta Hari (Finland) in January organized and chaired a public session, "Science and Serendipity," during The Science Days ("Tieteen Päivät"). In April, at Fondation Médicaments et Société 30 years Anniversary Conference, she gave an introductory talk, "Insights into the Social Brain," and participated in a panel discussion, "Is the Brain Smart Enough to Understand Who We Are?" in Brussels, Belgium. *The Human Mind*, co-written by her and others for the general public, was published by Gaudeamus Oy. The Finnish online radio YLE Puhe interviewed her about the book.

Etienne Hirsch (France) in April for World Parkinson Day, participated in France Radio J and in Radio France Inter's program, "The Clever Head," on "The Club: Parkinson…" ("La Tête Au Carré", in "Le Club; Parkinson, Savants Dans la Savane, Alcoolisation Prénatale et Pasteurisation"). He was elected president for 2014-19 of the Research Executive Committee of the New French National Plan on Neurodegenerative Disorder. In celebrating the 50th anniversary of INSERM, he was asked to analyse the importance of collaboration for progress in his fields of neuroscience, cognitive science, neurology, and psychiatry.

Judy Illes (Canada) was involved in a celebration of BAW at the University of British Columbia, which hosted a series of public lectures and seminars including the Dana BAW Distinguished Neuroethics Lecture on March 17 given by Helen Mayberg (see Mayberg) She spoke on "Rethinking Depression and its Treatment: Perspectives from Studies of Deep Brain Stimulation." Dr. Mayberg also gave Neuroscience Grand Rounds at the Vancouver General Hospital on "Theory to Practice: The Evolving Role for Imaging in Optimizing Treatment for Depression," and held a seminar at the Core on "Recovery Takes More Than a Stimulator: An Evolving View of DBS for Depression" with Neuroethics faculty, researchers, and trainees. The Neuroethics lecture was featured in an article by *The Vancouver Sun*, "Promise of deep-brain stimulation for depression encourages research into other mental illnesses," and recommended as one of the "13 things to do in Metro Vancouver" in Georgia Straight.

Markku Kaste (Finland) in March gave the lecture: "How to Prevent Stroke and How to Recover, Should I Suffer One" at the Helsinki Finnish Club in Helsinki for the members of the Finnish Association of Civil Engineers, and at the Assisted Living Building in Martinlaakso, Vantaa, for Martinlaakso Literature Club members.

Ann Kato (Switzerland) in January gave a public lecture, "The Neuroscience of Meditation and Mindfulness," at the University of Colombo, Sri Lanka.

Martin Korte (Germany) in February gave a lecture, "How We Learn," in Magdeburg. He is writing a weekly column, "Open Your Brain," in the *Braunschweiger Zeitung* for one year from March 2015. In March, he gave a video interview to the health magazine, *Visite*, about cellular mechanisms of learning and memory.

Malgorzata Kossut (Poland) participated in Radio Tok FM's program, "Brain and New Technologies," as an introduction to BAW.

George Kostopoulos (Greece) gave a lecture in February, "Targets and Expectations from Current Research on Epilepsy," part of the BAW meeting, "Epilepsy Is Not What You Think." The meeting included six lectures and extensive audience discussions.

Elias Kouvelas (Greece) in January organized a discussion on Alzheimer's disease as a part of "Science in Our Life" at the Athens Music Hall. He organized and spoke at a BAW public symposium, "Emotion: From Literature to Neurobiology and Addiction." In April, he spoke at the Annual Meeting of the Hellenic Psychiatric Society on "Posttraumatic Stress Disorder from a Neuroscientist's Point of View."

Juan Lerma (Spain) gave the BAW inaugural speech and facilitated a round table discussion about neuroscience and education.

Pat Levitt (USA) gave several public lectures and symposia, including: "Addiction Fiction," Park City, UT in January, during the Sundance Film Festival Norlien Foundation Panel. He gave a keynote on "Early Brain and Child Development: The Core Story, Mechanisms and Challenges" and "Communicating the Science of Resilience to Your Stakeholders," Los Angeles, CA in February during the California Head Start Annual Conference, Ed Zigler Research Institute for families and service providers in the early child care area. He spoke on "The Neurobiology of Social Behavior Development and the Importance of Individual Differences," Pasadena, CA , March, during the 3rd International Profectum Foundation Conference; and "Early Brain and Child Development: The Core Story, Mechanisms and Challenges," at the Oklahoma Infant Mental Health Training Institute Workshop in Oklahoma City, Oklahoma, March at a conference focusing on infant and toddler mental health.

Stafford Lightman (UK) in April chaired the BioDynamics workshop at the University of Edinburgh, and in May gave a lecture, "The Dynamics of Stress: Is It All in the Head? at the Bristol Pint of Science Festival.

Pierre-Marie Lledo (France) in January had his article, "*Controlling Memories*," published in *Cerveau et Psycho*. With his colleagues, he gave a BAW lecture, "Internet, School, Society. What Does Neuroscience Know About How The Brain Is Built?"

Pierre J. Magistretti (Switzerland) in March gave a lecture, "Emotion, Music and the Brain," as part of the Enrichment in the Spring program at King Abdullah University of Science and Technology in Saudi Arabia. In April, at The Brain Forum, Lausanne, he gave a lecture, "Neuroscience funding and policy," and also co-chaired the "Brain enhancement and repair technologies" session with Edward Boyden, MIT, Grégoire Courtine, EPFL, and Miguel Nicolelis, Duke University and Natal Institute. Listen to the interview on Radio CQFD The Brain Forum.

Margarity Marigoula (Greece) organized and presented BAW events: "Brain…the Known and Unknown" to students from four junior high schools in Pyrgos; "Brain…the Quest for Its Secret" to students from eleven junior high schools in Patras; "Little Brain Researchers" to primary school students on the island of Chios. These events were extensively covered by the national media and a YouTube video illustrated her technique.

Oscar Marin (Spain) had his opinion article on science policy, "Why We Went (and Why We Would," published by *El Pais* in March.

Helen S. Mayberg (USA) gave a TED Talk, "TEDx Emory: Depression Unstuck: Targeting Negative Mood at Its Source Using Deep Brain Stimulation" on February 28. She also gave the Dana BAW Distinguished Neuroethics Lecture at University of British Columbia, on March 17 (see Illes.)

Irena Nalepa (Poland) was the organizing committee member for Krakow BAW 2015.

David Nutt (UK) gave a keynote lecture, "Why Scotland Should Lead the Neuroscience Enlightenment," during the April BNA Festival in Edinburgh. He also gave a public lecture, "Time for Neuroscience to Control Drug and Alcohol Policy," to the Bergen Students Society in Norway.

DANA ALLIANCE MEMBER ACTIVITIES CONTINUED

Elzbieta Pyza (Poland) in March was interviewed by Radio Krakow about the circadian clock in the brain. She was also interviewed by Radio RMF about BAW 2015 in Krakow.

Eric Racine (Canada) and the Neuroethics Research Unit organized the Montreal Neuroethics Conference for Young Researchers in Montreal on April 17. Young researchers from dozens of North American and overseas institutions participated. A special program for neuroethics scholars was launched and several prizes were offered to the next generation of researchers. Racine gave a lecture, "Roundtable: How to be successful in your early neuroethics career," at the conference.

Geoffrey Raisman (UK) since January has made many presentations about the results of his research on spinal repair, including to Baroness Deech at the House of Lords; the Department of Health; Transport for London; Lloyds of London Insurance; The Royal College of Surgeons; The Royal Society of Medicine; major UK university medical schools; and several medical societies. He has also been a key speaker at the Courtaulds Institute, KPMG, and Wired Health TEDx meetings.

Mark M. Rasenick (USA) has been integrally involved in the American Brain Coalition's (ABC) advocacy services, including a partnership with the Congressional Neuroscience Caucus in hosting and organizing events that promote and develop legislation to advance neuroscience research; sponsor briefings on neuroscience research; and collaborate with patient advocacy, physician and research organizations to promote awareness. Among the most recent Neuroscience Caucus Briefings that ABC hosted was "Brain Health Breakthroughs: Good News for Service Members, Students, and Seniors" on March 19.

Grega Repovs (Slovenia) in February spoke on the TV educational program, "Bite the Science," about "Pathway to a Good Memory." He was also interviewed for the first episode of the Slovene student radio show, "Black Box," which was dedicated to cognitive science and the questions it addresses. In April, he was the speaker at the SiNAPSA Challenge lecture, "Will Computers Overcome the Human Brain in Its Abilities?"

Richard M. Restak (USA) was an invited speaker at Renaissance Weekend in Santa Barbara over President's Day weekend and spoke on the subject of "How Technology is Changing the Brain."

Ana João Rodrigues (Portugal) gave a BAW public lecture, "The Enigmatic Brain," at the University of Minho. She was also interviewed by *Diário do Minho* in the same week, on this subject. The University of Minho also produced a BAW 2015 video.

Steven Rose (UK) in February had his article, "50 years of Neuroscience," published by *The Lancet*, in which he recalled monthly meetings with other neuroscientists over fifty years ago, above the Black Horse pub in Rathbone Street, central London. These meetings culminated in the formation of the British Neuroscience Association. In March, he debated "Do We Really Have a Free Will" with author and philosopher Julian Baggini, at the Barbican open salon, London.

Alois Saria (Austria) in April his web article, "The Status of The European Human Brain Project," was published by ORF online (Austrian Broadcasting Corporation). He was also interviewed on radio ORF OE1 about the objectives of the project.

Ana M. Sebastião (Portugal) is director of the newly created Mind-Brain College at the University of Lisbon. She gave a BAW public presentation about the College, and at the closing of BAW in Lisbon, took part in a round table discussion on brain development. In March, she gave an interview to Radio Antena 2 on how neuronal function can be affected in health and disease, with the main focus on the actions of cannabinoids. In April, she chaired a "Drugs and the Brain" debate at the Nautical Technical School for 60 students, ages 17–21 years.

Wolf Singer (Germany) in February gave a lecture in Frankfurt, "The Brain Is a Self-Organising, Dynamic System: Challenges of a Paradigm Shift." In April, at the University of Berne, he gave a lecture, "Can The Limits of Science Be Discovered–Brain Research For Example," as a part of the "Where Modern Science Reaches Its Limit" lecture series. In January, his article (co-written with Michael Jacob), "I Plead For More Humility" was published in *Bundesbank Magazine*. In March, he was interviewed on HR3 Horizonte TV for the program, "Brain Research and Ideas of Man."

Irina Skaliora (Greece) gave a BAW lecture with a discussion, "Empathy: Perceiving Emotions in Others." In May, she gave a Café Scientifique presentation, "Right You Are, If You Think You Are: Pirandello Meets the Neurosciences."

Michael Stewart (UK) in February took part in a UK-India joint workshop, sponsored by the UK Science and Innovation Network, on "Affordable Medical Diagnostics and Devices," with meetings in Mumbai, Puna and Chennai, India.

Piergiorgio Strata (Italy) gave two BAW lectures, "The Brain-Mind Issue" at Ancona University, and "Neuroscience Olympics for High Schools: The Biology of Consciousness." In March, *La Stampa* published his article, "Italy Delays Research," and *Starbene* magazine published his article about memory. He appeared in two segments of the national TV program "Elisir" in January, "Music and Medicine" and in March, "Memory." Also in March, the American Physiological Society, in Boston, recorded an autobiographical interview for the History Programme.

Eva Sykova (Czech Republic) in January, as both a neuroscientist and a senator in the Czech Republic Parliament, spoke about science at a seminar, "Women in Research and Business." In March, she was a speaker in the Senate at "A Meeting of Exceptional Women." Her articles on insurers paying for stem cell therapy were published in March in *Lidové* Noviny and *MFDnes* newspapers. In March, she was interviewed on Nova TV about ALS and in April, on CR1, a Horizon CT 24 program about rare diseases.

Alex Verkhratsky (UK) in March had his e-book, *The Physiology of Astroglia: Channels, Receptors, Transporters, Ion Signaling and Gliotransmission,* co-written with Vladimir Parpura, published online by Morgan and Claypool. He edited, with Vladimir Parpura, "*Neuroglia in Biology and Medicine: From Physiology to Disease,*" part of the Colloquium Series.

Ana-Maria Zagrean (Romania) gave a talk at Carol Davila University in Bucharest about her twelve years of organizing BAW in Romania, emphasizing the significance of events.

Leon Zagrean (Romania) gave the BAW Neuroscience Opening Public Lecture. Prior to BAW, he was interviewed on Radio Bucuresti about neuroscience topics, emphasizing "The More We Discover, the Less We Know." In April, he talked about "The Limits of Perception" on Digi World TV, Digipedia Show.

NEW MEMBERS OF THE DANA ALLIANCE FOR BRAIN INITIATIVES 2014

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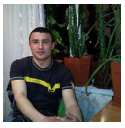
NEW TERM MEMBERS OF THE EUROPEAN DANA ALLIANCE FOR THE BRAIN 2014



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DANA ALLIANCE NEWS

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