

## **BAW Corner abstracts for presented posters**

### **18<sup>th</sup> Brain Awareness Week in Eskisehir, Turkey**

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**OBJECTIVES:** To motivate students to learn about the brain and even inspire some of them to launch a career in neuroscience. To educate the public about the importance of physical activity, mental exercise, right nutrition, sleep hygiene and social interaction to promote healthy brain aging and to improve life quality for the elderly.

**EVENTS:** The Brain Awareness Week (BAW) activities in Eskişehir-Turkey included six distinct projects: lab tours, the Brain Bee (BB) competition, public conferences, academic panel, school visits and the publication of Special BAW Issue of the Osmangazi Journal of Medicine (new in 2016).

**FUNDING:** Printing of posters and the special issued BAW Journal, and the awards of BB have been sponsored by Eskişehir Osmangazi University (ESOGU). First place winner of BB was given a brand new computer by Enton A.Ş.

**BENEFITS OF PARTICIPATION:** Many students have decided to pursue careers in Bio-medical science after attending Brain Bee. Their response to the lab tours was lively and dedicated. All the teachers and principals expressed their interest in having us back next year. School visits were very inspiring for medical students (Brain Team) as well. They have not only enjoyed in teaching K-12 students about the brain but also learned to prepare teaching materials.

**EVENT PROMOTION:** Posters, pamphlets, e-mails and announcements on the ESOGU website were used to organise and promote the activities. Facebook was also used to further spread the events and related page had over 10.000 visits during BAW.

### **BRAIN and PERM: Let's get acquainted!**

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1 National Research University Higher School of Economics, Perm, Russia

2 Perm State Academy of Medicine named after Academician E.A.Wagner

In Russia, Neuroscience is a very fast developing scientific field with new laboratories and projects emerging every year. However, the public understanding of

brain organization and functioning is unacceptably poor, even in such big cities as Perm. Inspired by our colleague Dr. Kulikova Sofya, who has recently returned from France and participated in the BAW events there, we've got up with the idea of organizing the 1st Brain Awareness Week in our city.

Our BAW events included 4 types of activities and were attended by ~ 350 participants:

- 1) Interactive lectures delivered to senior school children (14-18 years old) at schools. In these lectures we explained the general principles of brain structure and functioning, the modern methods for brain investigation (EEG, MEG, fMRI, optogenetics, etc.) and cutting-edge neurotechnologies, like brain-computer interface.
- 2) A short cycle of science-popular lectures aimed at university students (>18 years old) from non-biological fields.
- 3) Open-access events for children (6-10 years old) consisting of games and hand-crafting exercises allowing to learn the basis of brain organization and functioning.
- 4) Open-access lectures on Neuroeconomics for general public.

Initially all BAW events were planned between the 14th and the 20th of March but due to great interest evoked among school children we were asked to make more school lectures even until the beginning of April! On the whole, our first BAW experience was extremely positive: it evoked great public interest to neuroscience and provided us with new forces and enthusiasm to organize our second BAW next year!

## **Brain Awareness Week 2016 in Innsbruck: “The world of the senses”**

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Medical University of Innsbruck, Austria

The BAW has been successfully conducted in Western Austria since 1999. In 2016 we offered a variety of activities with a focus on the sensory systems. Several presentations were organized by our vice rector for research (Dr. Christine Bandtlow) and given by experts in their fields. Appr. 150 attendants of all age groups participated per day and engaged in long post-talk discussions. A special highlight was the lecture about the latest news on cannabis use (Dr. Hans-Günther Knaus, Pharmacology). Dr. Michaela Kress (Physiology), the director of the EU-project “ncRNAPain”, held a lecture about pain mechanisms. Dr. Birgit Högl (Neurology), a well-known doctor heading the sleep laboratory in Innsbruck, revealed the relation between sleep, dreams and the senses. The director of the ophthalmology clinic, Dr. Nikolaos Bechrakis, took the public to a journey through the human eye and informed about visual disorders. Thirty percent of the population suffer a vertigo-attack once in

a lifetime. So, Dr. Katharina Hüfner, a young psychiatrist, answered a lot of questions about this topic. For students and young people starting at kindergarten age Dr. Lars Klimaschewski (Neuroanatomy) developed a special program in collaboration with the local State Board of Education. During this year's BAW, appr. 230 pupils attended seminars in their schools covering a variety of topics from brain anatomy, neurosurgery, drug addiction, epilepsy and mechanisms of learning. Fifty children took part in the special kids afternoon workshop.

## **Brain Facts and Research 4everyone**

Varela Amaral S., Braga I., Fernandes A., Cavadas C.

Centre for Neuroscience and Cell Biology, University of Coimbra Abstract:

Neuroscience research has an important place in contemporary science and potentially strong implications for society. For that reason, and especially in societies particularly interested in scientific outcomes, communication strategies of scientific knowledge face multi-challenges. Brain Awareness Week (BAW) is an opportunity to diversify science communication approaches and to establish relationships with society. BAW is a global campaign to increase public awareness of the progress and benefits of brain research. Our BAW activities were designed to increase community awareness of the potential for improving long-term brain health through lifestyle changes, involvement in creative activities, and risk reduction strategies. In order to create meeting places between science and society we developed several activities in formal, informal and generic places. In 2016 we produced audio-visual contents about neuroscience research and we organized several public events and school sessions. We established strategic partnerships in order to diversify our approaches and broaden our audiences. Our activities involved 55 researchers and reached more than 1100 people from different publics. We already present here the main findings of an impact study of our BAW activities related to the acquisition of knowledge by participants and the perceptions of the researchers involved. Based on our results, we believe that our BAW represents a contribution to a more knowledgeable and engaged society in scientific research.

## **“Creativity: it's in your head!” (“La créativité, c'est dans la tête!”)**

Le Brun I.

Since its first edition in 1999, more than 1,000 people attend the Brain Awareness Week (BAW) in Grenoble each year. This success is largely due to the fact that local neuroscience laboratories, the culture and communication department of the University Grenoble Alpes as well as Grenoble University Hospital and local associations are active members of the BAW executive committee.

BAW actions are financially supported by member institutions, as well as by external resources: grant applications sent to local authorities (city, region) and brain research federations.

Grenoble BAW offers resources and information about the week through its local website [www.atoutcerveau.fr](http://www.atoutcerveau.fr) or social network <https://www.facebook.com/Lasemaineducerveau/>. Most events are podcasted a few weeks later on Grenoble Alpes University website.

The 2016 edition of BAW focused on creativity: What is creativity? What are the brain correlates of creativity? Which environments foster creative mental states? Can machines be creative?

The events were organised in a diversity of settings and places in order to meet different audiences. They included conferences, a documentary film, discussions, a workshop for children, speed dating for families and an ephemeral bookshop. Two exhibitions have been proposed, during BAW, as well as a few weeks before and after, the first one with original illustrations of the children book "In Albert's head" and the second comparing XIXth century literature's views of the brain with contemporary neuroscience theories. The interactive format of the second exhibition allowed us to collect reactions from the audience that will help us prepare our next edition.

## **Evolution of the Brain: an exhibition for the 2016 Bristol Neuroscience Festival**

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Bristol Neuroscience (BN) was founded by the University of Bristol in 2003 to ensure that all neuroscientists in Bristol could benefit from the wide cross-disciplinary expertise and facilities in the University and its partner hospitals. In 2013, to celebrate BN's 10 year anniversary, we held a free public science festival in the iconic Wills Memorial Building. The event attracted more than 3000 visitors over two days so in 2016 we decided to hold a similar event again. With support from the DANA Foundation a new exhibition was developed for the festival. The aim was to provide visitors with examples of real brains to illustrate how the brain has developed and changed across species. The resulting exhibition included brains collected from insects, fish, birds and mammals. The samples were prepared and fixed then mounted into identical size specimen pots so that the relative size and anatomy could be clearly illustrated. The resulting exhibition consisted of 16 brains from the smallest, a cockroach, to the largest, a cow. Visitors were able to observe how different parts of the brains were represented across species and how sensory processes influenced the relative size of different areas. The exhibition was

complemented with a set of sheep brains which had been dissected and could be handled by visitors as well as a model of a human brain. Over 3000 people attended over 2 days including ~1500 school students.

## **Full seven days of brain awareness in Trieste, Italy.**

Battaglini P. P.

Department of Life Science, University of Trieste, Italy.

Brain Awareness Week 2016 was organized by the University of Trieste and SISSA/ISAS (International School for Advanced Studies) with the partnership of Immaginario Scientifico Science Centre and Rotary club Trieste. It was sponsored by FENS/DANA Alliance for brain initiatives and the Mayor of Trieste, under the patronage of the Italian Society for Neuroscience.

Nine events were organized, which were spread all over the week. They have been:  
Monday 14 afternoon: FANTANEURO; neuroscience in science fiction. Round table with readings and film screenings. General public.

Tuesday 15 morning: Radio program; two hours with the leading organizers and presentation of the entire week. General public.

Wednesday 16 afternoon: Roundtable; Why do we sleep: sleep effects on mind and body. Two sessions were organized: one in a high school and one in a library. General public and high school students.

Thursday 17 afternoon: Science café; The biology of depression and the attention deficit/hyperactivity disorder in children and teens. General public.

Friday 18 morning: Olympic games of Neuroscience; regional stage of the International Brain Bee. High school students.

Friday 18 afternoon: Roundtable; Brains + brains -: we and the animals. With the partnership of Rotary club Trieste. General public.

Saturday 19 morning: Visit to the laboratories of SISSA; seminars and interactive experiences on Neuroscience and social behaviour. General public and school students.

Saturday 19 afternoon: Roundtable: The Internet of things; how objects will dialogue thanks to Internet. General public.

Sunday 20 evening: Music and the Brain; concert with scientific interludes. General public.



## **Hellenic Society for Neuroscience Brain Awareness Week 2016: From Science to Society**

Hellenic Society for Neuroscience

The Hellenic Society for Neuroscience (HSfN) has a long tradition in outreach activities for the communication of Neuroscience achievements to the general public. For the BAW 2016 three complimentary approaches have been followed:

A. Activities targeting the broadest audience possible, i.e. A public outreach event in the most central metro station in Athens (Syntagma) where passing-by travellers had the chance to see and explore images and models of brains and neurons, use microscopes and interactive software depicting brain areas, as well as to pose questions to members of the HSfN.

B. Events engaging elementary and high school students in many places throughout Greece (e.g. Patras, Pyrgos, Nafpaktos, Salonika). These events included short theatrical plays, musical performances, Karagiozi's acts, handcrafts, student projects, talks and posted announcements.

C. Public lectures, art exhibitions (Brain-scapes) and book presentations (G. Paxinos' first novel "In His Image") which acted as triggers for free question and answer interaction with the audience in various places in Greece (e.g. Athens, Nafpaktos, Rethymno -Crete, Salonika and Volos). Subjects covered included "Depression in life and art", "Learning through reward", "Emotions and empathy", "The effects of poverty on the brain and behaviour of children", "Plasticity of the brain", "Nutrition of the brain".

Participation in all events, once more as in the previous years, has been extremely high, with lively conversations, enthusiastic comments and immense interest in answering questions, especially regarding the effects of stress and aging on brain structure and function.

## **Romanian brain-match: neuroscientists versus society**

Zagrean A-M., Moldovan M.

National Neuroscience Society of Romania

Does the brain research effort match the society expectations in Romania? National Neuroscience Society of Romania together with researchers and clinicians from "Carol Davila" University of Medicine and Pharmacy, Bucharest, aimed to build upon the Brain Awareness Week 2016 opportunity to address this challenging question. By an online survey, we mapped the on-going research interests of Romanian neuroscience research groups as well as what members of the Romanian society in the broad sense expect from brain research. We received 177 responses (27% from

neuroscientists). From society respondents (61% of which were 19-30 years old), only 35% reported to activate within the biomedical field. Nevertheless, they considered that neuroscience should prioritize finding treatments for nervous system diseases (42%) as compared to understanding the normal nervous system (13%). More specifically, the principal area of interest from the society was the treatment of neurodegenerative diseases and their impact on the mind. In contrast, responding neuroscientists (49% master and PhD students) reported a greater interest for understanding the normal nervous system (23%) without a particular priority for the mind. These results were discussed in a series of public lectures during BAW involving decision factors, science regulators and invited scientists from the Romanian diaspora. We benefitted of a wide press and media coverage. Satellite events included practical neuroscience workshops and a presentation competition for students. The project was supported by a Dana Foundation grant awarded by FENS.

## **Savour Toledo (Saborea Toledo) - BAW 2016**

Jovanovic K., Monroy J. C.

This year Toledo takes the national centre stage as the Spanish Capital of Gastronomy and celebrates 30 years as the UNESCO's world heritage site.

Employing these two initiatives as a backdrop, our program offered to the public of all ages a series of activities in which the neuroscience research and taste of local cuisine and culture came together. To integrate our Brain Awareness Week with the above initiatives, and to capture the spirit of each one of them, our poster consists of three elements: the DANA poster template symbolizing the importance of the brain, the outline of Toledo's cathedral (the main cultural landmark and tourist attraction), made of pots, pans and cutlery symbolizing the two events Toledo is celebrating this year, and, extending throughout the poster background, a pyramidal neuron of the V cortical layer known to be involved in sensory information processing.

By positioning the cathedral below the brain we wanted to convey the message that all we experience, being that a taste of delicious food or beauty of arts, we owe to our brain. More specifically, we owe it to a continuous and fascinating process: the activity of neurons in our brain. To emphasize the importance of neurons and their activity, we enlarged the pyramidal neuron and made it into the poster background connecting all its elements.

The actual recording and visualization of the neuron was done by the Experimental Neurophysiology group at the National Hospital for Paraplegics.

## **Seven senses of the world - a closer look into our own brain reality**

Stankovic S., Jovanovic M., Dragicevic J.

Students' Neuroscience Society of Serbian Neuroscience Society

Every March, from 2011 on, an enthusiastic organisation of 50 students attending University of Belgrade, called Students' Neuroscience Society of Serbian Neuroscience Society, have only one determination - to organise better, more amusing, innovative BAW with higher public outreach. With help from DANA Foundation and FENS, this years' BAW project has united over thirty eminent partners from highly appreciated scientific, educational, cultural and public institutions and organisations. Numerous activities had brought general public attention to learning more about the connection between our senses, brain and reality we perceive. Lectures held by distinguished professors and PhD scientists, panel discussion held by board members of Serbian Brain Council on improving public outreach, scientifically popular exhibition, laboratory visits, workshops held in high and elementary schools with goal of creating peer education groups, a short movie festival in collaboration with well- know artists from all Serbia interpreting their view of importance of the brain, neurocaffee and neuroquizz in local cafés and pubs and many more. It's appraised that during seven days of this years' BAW, around 8 000 people was outreached. We are most proud on biggest yet interest from younger population and calls for further action and cooperation with many elementary and high schools, children's cultural centres, foreign cultural institutions in Belgrade, city libraries and individuals from general population. We're hopping that with experience gathered throughout the years, Students' Neuroscience Society of Serbian Neuroscience Society, next years' BAW activities in Belgrade also reach out to people outside of Serbia, bringing focus on brain.

## **The Berlin Brain Awareness Week (BAW) 2016**

Dose I., Franke M.

Bernstein Center for Computational Neuroscience

During the BAW in Berlin, we offered a versatile program for the general public and junior scientists. Our target groups included kids, high school pupils and adults. The week began with a program for pupils. After an introductory talk we offered seven workshops, where participants got an insight into several areas of brain research.

The movie "Inside Out" was shown for kids, followed by a Q&A session with a faculty member answering questions and giving an insight into research on emotions. The evening talks were targeted toward the general public, with topics such as



“Language, learning and the brain” and “Apollo’s gift: the effect of music on thinking, feeling and emotions”. A further workshop was offered in a day care centre for children with a neuron game and a decision- making experiment. A scientific symposium for junior scientists and an exhibition combining neuroscience and art completed our BAW program.

The program was advertised through a TV system installed in subway trains, at the university refectory TV system, online at [www.baw-berlin.de](http://www.baw-berlin.de), on several partner websites as well as on Facebook and Twitter.

The BAW was organized by the Berlin School of Mind and Brain, Medical Neurosciences, and the Bernstein Centre for Computational Neuroscience Berlin. The events were sponsored by the DANA Foundation and conducted in cooperation with several institutions and event locations: Humboldt-Universität zu Berlin, Technische Universität Berlin, Charité Universitätsmedizin Berlin, Max-Planck Institute for Human Cognitive and Brain Sciences, die gelbe Villa, Yorck Kinos, Pop Science Café, Schering Stiftung, Berlin Metropolitan School.