FEDERATION OF EUROPEAN NEUROSCIENCE SOCIETIES



DANA/FENS funded Brain Awareness Projects - Final Report 2010



In 2010, the directors of the Dana Foundation again approved a grant to FENS. This money together with an additional allowance from the Federation enabled the funding of small grants to several European Brain Awareness Week partner organizations for public presentation during the campaign.

FENS distributed these grants in a competitive procedure. A call for applications was launched and the best projects were funded. 72 applications from 26 different European countries were submitted, 27 projects in 20 different European countries could be supported.

The following BAW events (listed in alphabetical order by country) were selected:

- 1. Julie Maetens (Charleroi, Belgium) "Pas si bêtes! 1001 cerveaux"
- 2. Roland Pochet (Brussels, Belgium) BAW day at EU parliament
- 3. Maja Valic (Split, Croatia) Brain and Senses
- 4. Olaf Paulson (Copenhagen, Denmark) "Show me your brain and I tell you who you are"
- 5. Heikki Tanila (Joensuu, Finland) SciFest Hands on brain
- 6. Isabelle Le Brun (Grenoble, France) The brain under influence
- 7. Katharina Braun (Magdeburg, Germany) 7th Magdeburg brain day
- 8. Domna Karagogeos (Athens, Greece) BAW activities in Greece 2010
- 9. Illana Gozes (Tel Aviv, Israel) BAW in Isreal
- 10. Alexandra Battaglia-Mayer (Rome, Italy) The brain for little kids
- 11. Piero Battaglini (Trieste, Italy) Neuroscience at the theatre: The electroshock
- 12. Antonella Forgelli (Rome, Italy) The knowledge of neuroscience in the development of new

models for teaching and learning

- 13. Nijole Midttun (Vilnius, Lithuania) Brain health at work: Network
- 14. Anna Kaczmarek (Lublin, Poland) Brain The neverending story
- 15. Wioletta Waleszcyk (Warsaw, Poland) BAW 2010 in Warsaw
- 16. Maria Teresa Girao (Coimbra, Portugal) A ride into perception
- 17. Luisa Lopes (Lisbon, Portugal) "What goes on in your mind?" Brain and art
- 18. Manuela Pandurariu (Iasi, Romania) BAW at "Socola" hospital lasi
- 19. Martina Starc (Ljublana, Slovenia) The brain in love, happiness and passion
- 20. Maria-Trinidad Herrero (Murcia, Spain) Research and innovation on nervous system diseases:

Are we on the right track?

- 21. Mara Dierssen (Barcelona, Spain) Brain and Art: The creative brain
- 22. Jennifer Steiner (Lund, Sweden) Brain and fun: Interactive learning for kids
- 23. Andreas Papassotiropoulos (Basel, Switzerland) Brain research: News in Basel
- 24. Maarten Frens (Rotterdam, The Netherlands) Neuroscientists at school
- 25. Ferhan Esen (Eskisehir, Turkey) Let's explore the brain and sense organs
- 26. Anya Hurlbert (Newcastle, UK) BAW 2010 at Newcastle
- 27. Jamie Weiss (Sheffield, UK) Talks on nerve cell communication during BAW in primary and

secondary schools

1. Pas si bêtes ! 1001 cerveaux. / Belgium, Charleroi

Dates and Duration: March 15 - December 19, 2010

Contact

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The *Pas si bêtes ! 1001 cerveaux* is an exhibition intended for the general public and particularly for young people allowing them to discover and explore this fascinating organ and its functions. At the exhibition in the museum further information on recent scientific headways in the brain domain are communicated by our team supported by a scientific committee gathered for the occasion. The workshop labs taking place at the event are elaborated by our team with the help of various researchers, so the groups were able to complete their guided tour by a practical activity.

Finally, a cycle of conferences and debates is organized throughout the duration of the exhibition. Therefore, the general public is given the opportunity to meet actors of the research world in the field of neurology and to exchange with them at the exhibition.



2. BAW day at the EU parliament in Brussels / Belgium, Brussels

Dates and Duration: March 16, 2010

Contact

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Advancing public awareness about the brain and brain research is of utmost importance to the Belgian Brain Research Council. Therefore, the council decided to reiterate the experience it had in 2009 with STOA (Science and Technology Options Assessment) of the European Parliament and organized a day at the European Parliament.

Paul Rübig, Member of the European Parliament and recently nominated STOA chairman accepted the challenge and a programme was defined. The day was divided in two parts. On the first day a keynote lecture for students, MEPs and large public took place. On the second day the debate focused on "Measuring the Brain Function" with special dedication to the EU Commission Directive 2004/40/EC on Magnetic Resonance Imaging.

Roland Pochet invited Professor Karl Friston to speak about his theory on how the brain works, selected the experts for the afternoon panel and invited the schools to participate as well.



In the morning, 130 students (16-18 years old) from 6 schools (Ecole européenne, Lycée Français, Athénée de Chénée-Liège, Haute Ecole de Namur, Lycée Vauban de Givet-France, Notre-Dame de Bellevue de Dinant) representing 18 different nationalities came to the event.

The conference and the questions/answers were video recorded and translated into English, French and German. The conference with slides is available on the Belgian Brain Council website (www.belgianbraincouncil.be).



The afternoon was dedicated to a debate chaired by Antonio Corrieia de Campos Corrieas with four experts (Steven Laureys from Université de Liège, Frank Boeye, President of the brain tumor patients association, Thierry Metens, from Université libre de Bruxelles and Georges Herbillon from the European Commission) was dedicated to the social and political aspects of the brain imaging.



3. Brain and Senses / Croatia, Split

Dates and Duration: March 15 - 20, 2010

Contact

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The five human senses (sight, smell, hearing, touch and taste) were presented to the children through the games and funny activities during this BAW event 2010 in Split, Croatia. The children made their own brain models (see Figure 1) using Play-Dough and a string to make brain curves. This was followed by a presentation of the scientist look. The children were dressed like a scientist (see Figure 2).





A short introductory game was performed to break the ice. Children were given 5 pieces of paper with one picture of an eye, a nose, an ear, a hand and tongue on each paper. We were playing the game: when I said "red" they had to raise the right picture up in the air (eye); if I said "music" they had to raise ear etc. according to which sense was activated. Also the game "magic box" was performed. Boxes filled with different things used in daily activities such as spoons, toothbrushes, oranges, pears, sponges, forks, balls, keys etc. were put into this "magic box". Children had to close their eyes and tried to guess what item they were holding in their hands. They were only allowed to touch the object and enjoyed this game very much. They were also given the opportunity to smell various fruits and recognized it in a second step. POINT: We can recognize things if we don't see them. Touch can substitute the sight (vision) and blind people have an excellent sense of touch and smell. Further, different games were played with younger children. They used band-aid and syringes to treat their sick teddy bears and played hide and seek in the tent we had provided for them. Finally, all children were given the opportunity to draw an object (their choice was to draw a house) with their left and right hand on the same piece of paper. POINT: They were able to compare their drawings and learn about the brain hemisphere controlling their dominant hand. Some new items were acquired such as eye models, new microscopes and optical illusion sets. Some pictures are displayed on our website. The local radio and TV followed the entire BAW 2010 as well.

4. Show me your brain and I tell you who you are / Denmark, Copenhagen

Dates and Duration: March 17, 2010

<u>Contact</u>

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In the fall of 2008, a group of neuroscientists initiated the contact to the Danish Science Theatre attempting to establish a performance with the title "Show me your brain, and I will tell you who you are". This performance is also arranged by professional actors and "play" relevant, neurological topics such as partial complex epilepsy, Alzheimer's disease, hallucinations and borderline reality.

"What can modern brain scanning be used for in order to be able to tell more about the individual brain function and personality?" In between the performances scientists discuss and explain relevant topics related to the mentioned teams.

The performance in March 2010 was shown at Hvidovre Hospital located in the southern part of Copenhagen. The performance was free of charge and open for the general population. In the theatre at Hvidovre Hospital there is space for 130 people, and all seats were booked within two days. Therefore, the event was a great success.

5. SciFest – Hands on brain / Finland, Joensuu

Dates and Duration: April 14 - 17, 2010

<u>Contact</u>

Kuopio Neuroscience Center Prof. Heikki Tanila Department of Neurobiology A. I. Virtanen Institute University of Eastern Finland P.O.Box 1627/ Neulaniementie 2 70211 Kuopio, Finland Phone: +358-40-3552084 Email: Heikki.Tanila@uef.fi

To reach out to schoolchildren and get them interested in neuroscience, we set up a workshop at "The fourth festival of science and technology", SciFest® that took place on April 14-17, 2010 in Joensuu in Eastern Finland near the Russian border. This science gathered 6000 school-children and their teachers all over the world, but mainly from nearby regions. The general theme of SciFest this year was 'biodiversity', while our workshop was held under the title 'Aivopesula' (Brain wash). Every session began with an elementary introduction to neuroscience including many interesting and amusing facts about diverse capabilities of the human nervous system in health and disease. Thereafter we split the students into three hands-on groups. The first group dealt with basic electrophysiological mechanisms operating in the brain. The second group examined various models of brain diseases under the microscope, ranging from crawling live roundworms to histological sections of transgenic mouse models, and try to find underlying reasons behind a forgetful mouse. The third group was asked to draw their observations on a paper. All these activities kept the students engaged and busy for the duration of the workshop that typically lasted about an hour. For younger visitors we had plastic 3D brain models that could be pulled apart and reassembled. The audience enjoyed our workshop. The DANA support covered the costs for travel and accommodation of our exhibition group during the SciFest, as well as preparation of the exhibition material. Without the support, the campaign would not have been possible.

Links:

Setting up 'SciFest' (video)

http://media.kooviis.fi/nettitelkkari2/share.php?link=Scifest/13_04_10_scifest_rakennus.flv Greetings from the foreign visitors (video):

http://media.kooviis.fi/nettitelkkari2/share.php?link=Scifest/Scifest_video_tervehdys.flv An excerpt on the web version of the provincial newspaper Karjalainen http://www.karjalainen.fi/Karjalainen/vakiot/aivopesula vai tietolinkous 6120593.html

6. The brain under influence / France, Grenoble

Dates and Duration: March 8 - 30, 2010

<u>Contact</u>

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This year, the executive committee has proposed an inventive and varied program with transversal goals for the BAW event. Important was to inform about current research findings and to present what we know about the brain and to interact with citizens. Each event included a debate with the audience. These are the listed topics outlined during the BAW event 2010:

- 1) Two conferences:
 - a. "Hypnosis and neurology: an old love story" by Pr Jean Becchio. It has been resumed by two humoristic professional actors
 - b. "The imbibed brain" on alcohol and social behaviour by Pr Laurent Bègue
- 2) A "scientific coffee" on "Brain and stress"
- 3) The projection of a documentary on pain ("The man without pain", by Muriel Coulin)
- 4) A dance performance on "Brain and pleasure" at the University sciences library
- 5) A debate on "science fiction and drugs" around the book "Stups and fiction"
- 6) A reading by two professional actors of the book "The Copernic syndrome" (a thriller by Henri Loevenbruck talking about schizophrenia)
- 7) Workshops on memory and the five senses with children
- 8) An itinerant exhibition of neuroscientific photographies realized by GIN researchers
- 9) An artistic exhibition entitled "Dopamine, Parkinson and creativity" organized by Grenoble University Hospital/GIN
- 10) An artistic exhibition called "Doping, take the pill" organized by the CCSTI

This week was a great success. 50 to 300 people have participated in each event, which amounts to 1500 to 2000 interested parties for the whole week. Further, two TV shows and one radio interview were realized during the Brain Awareness Week, as well as some articles in local newspapers. The valorisation of the brain awareness week of Grenoble is done by realising a short video of the main events including some of the pictures taken during the week. All the debates during the BAW have been recorded and are placed as podcasts in the GIN website.

7. 7th Magdeburg Day of Education - Neurobiology and Therapy of Addiction / Germany, Magdeburg

Dates and Duration: March 18, 2010

<u>Contact</u>

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The 7th Magdeburg Day of Education was the continuation of an increasingly successful series of outreach activities started in 2004, organized by the Institute of Biology at the Otto von Guericke University Magdeburg. This years' event entitled "Neurobiology and therapy of addiction" attracted almost 140 participants from schools, nursery schools and kindergardens in the Federal State of Saxony-Anhalt, but also from neighbouring federal states. The workshop, which was featured in the local newspapers, included three main lectures, entitled "Neuro-molecular mechanisms of addiction", "Neurobiological causes and consequences of addiction" and "Addiction – the psychotherapeutical point of view". The excellent presentations evoked lively discussions from the audience. The generous funding by the DANA Foundation allowed us to publish a booklet (currently the 4th, extended edition) which summarizes the presentations given over the past years. In addition we were able to provide printed material on facts and lines in neurosciences (sponsored by the European DANA Alliance for the Brain). A questionnaire was given to the participants in order to get feedback and suggestions for next years' event. The high ratings, which were given for all presentations, the quality of the printed material, the large number of participants and the stimulating discussions throughout the meeting, confirmed that this outreach activity definitively met the interest of the public, in particular parents and professional educators.



Speakers of the "7th Magdeburg Day of Education -Neurobiology and therapy of addiction": Prof. Dr. V. Höllt, Prof. Dr. B. Bogerts, J.-H. Obendiek (from left to right)



The 4th extended edition of a booklet summarizes the presentations given over the past years.

8. BAW Activities in Greece 2010 / Greece, Athens

Dates and Duration: March 15 - 20, 2010

<u>Contact</u>

Prof. Domna Karagogeos Molecular Biology/Developmental Neurobiology University of Crete Medical School Researcher, IMBB-FORTH GR-71110 Greece Phone: +30-2810-394542 Email: karagoge@imbb.forth.gr

Various talks have been carried out in Greece during the BAW week in March 2010:

- The pathological features of the brain of Alzheimers' disease patients
- Stem cells in the brain: their role in stress, learning and psychiatric disorders
- Subjective perception: is it all in the brain?
- Stem cells: The foundations of brain development and the prospects for neurodegenerative disease therapy







9. BAW in Israel / Israel, Tel Aviv

Dates and Duration: March 14 - 20, 2010

<u>Contact</u>

Illana Gozes, Ph.D. President of the Israel Society for Neuroscience (ISFN) Email: igozes@post.tau.ac.il www.isfn.org.il

A total of >40 public lectures in multiple "events" took place during the "Brain Awareness Days" through the period of 14 to 20 of March. Members of the Israel Society For Neuroscience (ISFN), ranging from advanced PhD students to full professors, volunteered their time and gave public lectures. The lectures were organized by the ISFN together with Bashaar - Academic Community for Israeli Society (http://www.bashaar.org.il/english.asp). The lectures discussed Neuroscience research and its relevance to the understanding of how the nervous system functions, how brain cells talk to each other, the understanding of neurological pathologies (e.g. neurodegenerative diseases and neurotrauma), and the development of medications and strategies to cure and/or alleviate neural pathologies. The lectures were followed by discussions, in the form of questions/answers, for as long as the audience was interested. There was high participation of men and women, scientists and audience in all the events. The highlight of the BAW 2010 was the Panel of the Tel Aviv University Professors (the largest university in Israel). On Sunday, March 14th the lecture hall was full (highly exceeding its capacity) with a general adult public audience from all over the country. There was a crowd of >250 participants and there were multiple requests for many more events like that. It was a great success and plans for next year already include a larger lecture hall to allow 600-1000 people at a time to attend the event. The event was filmed for the internet: http://video.tau.ac.il/Lectures/Medicine/2010/Brain/14 03. This was also highlighted in Tel Aviv University News: http://www2.tau.ac.il/news/hebnew.asp

The largest target audience were high school students and the "general adult public". Nevertheless, some of the activities also included young children as well as assisted living housing. Most meetings were held in small towns and villages. The number of participants in each of those meetings varied, from 25 to 200 (except for the Professors Panel which exceeded all expectations).

The "Brain Awareness Days" were publicized in prominent newspapers ads to make the "general public" aware of the various activities and invite people to these meetings. The public was referred to our website (http://www.isfn.org.il/) where further detailed information was provided. Certain locations prepared posters to attract audience and provide further public knowledge. The DANA sponsorship from the FENS office allowed for robust advertisement which attracted the general public to our lectures.

Israeli media representatives attended the main lectures as well and were highly impressed by the quality of science and public interactions.

10. BRAINY! Neuroscience at the very beginning / Italy, Rome

Dates and Duration: March 15 - 20, 2010

<u>Contact</u>

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The project was addressed to kids (from the age 6) of an Elementary Public School located in the historic centre of Rome. It consisted of 4 sessions (2 hours each day), with the collaboration of 2 PhD students. The sessions were devoted to introducing the kids to basic concepts of Neuroscience by addressing the following questions:

- What is the brain for?
- How does the brain work? (electrical signals, neurons, synapses, neurotransmitters, receptors)
- How is the brain organized? (main brain regions)
- How do we interact with the external world? (basic sensory processes such as vision, auditory system and movement)
- Does anybody have a brain? (brains animal species)

We initially started from their naive answers with a discussion of what was correct and less appropriate in their ideas. Each session started with University-like lessons through PPT presentations (the kids were very excited by this new form of communication), followed by a laboratory in which they could see and interact with real brains, or different 3D models of eye, ear, skull and brain. At the end of each session several games were organised to apply and consolidate the concepts learnt during the lesson. At the end of the week, the kids performed artworks on brain functions that have been exhibited to the entire school. This exhibition caught the attention of many other teachers (not directly involved in the project) that were extremely enthusiastic about the overall initiative. In fact they asked to repeat it in the coming years. I have also received numerous spontaneous messages of appreciations by the kid's parents via mail, who were literally moved by the enthusiasm shown by their kids about...our brain!







11. Neuroscience at the theatre: the electroshock / Italy, Trieste

Dates and Duration: March 15, 2010

<u>Contact</u>

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Many events were organized, thanks to the good will of many local scientists. Thanks to further lucky co-operations we were able to offer a theatre representation, a movie, a workshop and a neuroscience café. Several events were accompanied by music with some kind of relation to neuroscience. We also organized the first edition of the Italian Brain Bee, as part of the International Brain Bee Competition.

Ugo Cerletti, the Italian inventor of electroshock, was celebrated in a theatre, where an excellent, local actor's company agreed to present short stories on his life and on other patients who underwent electroconvulsive therapy. The show, which was presented by four actors and two musicians, lasted about 90 minutes. It was intermixed with a conference from Prof. Gilberto Pizzolato, the director of the University Clinic of Neurology, on the contribution to neuroscience and neurology from Cerletti himself. This was the fifth representation of this series, which is called "Neurohistories". About 300 people attended this successful representation.







12. Neurosciences and the new models of learning: the teaching relationship in the digital era / Italy, Rome

Dates and Duration: March 15 - 20, 2010

<u>Contact</u>

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During the past decade, scientists have made a lot of advances in the knowledge of brain functioning, but many school teachers were trained at the time where the brain was considered changeable only due to diseases or aging. In the last years, neurosciences have discovered that the brain changes constantly; every day new connections are formed and the repeated use of the same nervous ways strengthens synapses and supports neural plasticity. While stress and anxiety do not create the best environment to help students in learning, motivation has a positive role in sustaining the attention and in improving the acquisition of new knowledge. Another interesting feature to consider is that parts of the actual educational problems are related to the differences between the digital generation of today's students (digital natives) and their teachers that were not born into the digital world (digital immigrants). These previous considerations were the core of the conference that was organized for teachers, students, from 16 to 18 years old, and parents, by Prof. Maria Luisa Eboli, on Saturday the 20th of March 2010, at the Liceo Classico Statale "Torquato Tasso" in Rome. The advertising of the event was done using posters sent to other schools. More than 1000 postal cards of the conference were sent to families. The preparation of the conference was administered by the biology teachers that gave courses in extracurricular afternoon hours. Seven students of the penultimate year were selected to introduce the audience into the anatomy and the physiology of the nervous centres involved in the subjects of the conference. After this introduction, Prof. Eboli, started her presentation attempting to show the differences between digital natives and digital immigrants.



Conference poster

The interest of the audience, about 400 people, for the conference was really high. Many requested to provide a selection of scientific articles to make people interested and to deepen the topics of the seminar. All the powerpoint presentations, together with the selected articles, were collected on a compact disc and distributed to all the students (about 1200) of the Liceo Classico "Torquato Tasso" in Rome.



Prof. Eboli talks to the audience during the conference



The audience during the conference

13. BAW 2010 in Vilnius / Lithuania, Vilnius

Dates and Duration: 15 - 20 March, 2010

<u>Contact</u>

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Mental Health Initiative, Lithuanian Neuroscience Association, Vilnius Art Academy Textile department, Kaunas Medical University Biology Institute, Vilnius University Department of Biochemistry and Biophysics and Action Group for establishing Lithuanian Brain Council cooperated implementing Brain awareness week project "Brain health at work: network" in the workplaces and "My neuron" in schools to improve awareness about neuroscience among the general public.

2010 is the second year that BAW is being organized in Lithuania. This year 2 cities have been involved – Vilnius and Kaunas, whereas in 2009 BAW was organized only in Vilnius. 12 lectures have been held during the week informing about brain health risk and protective factors focusing on: head trauma, substance abuse, violence at work and most common mental illnesses. Lectures included information about the biology of brain functioning, brain health risk factors, their epidemiology and recommendations for coping with these risk factors. Approximately 600 employees participated in the lectures. Further, 15 workplaces have participated in the making of a communication network that have resulted in textile art pieces. These "communication neural network" pieces are building blocks for a larger object (higher order network), that will later be exhibited and used for promotion of neuroscience issues. Between events the art object "blocks" as finished art pieces reflecting communication pattern (neural network) will be residing at each participating workplace.

The final event of the BAW was held in the National Art Gallery (Vilnius:

http://www.ic.ndg.lt/index.php?id=37&L=0) linking communication, mental health and brain networks in a meeting named "Spring flowers". A large "communication network" has been made on site through people discussing and talking around the theme "Nature in art".

The project "My neuron" was connected to the "Brain health at work" since some workplaces were schools participating in "My neuron". This is a project for schools: elementary and middle class schoolchildren. 10 schools are involved. Educational material was "My neuron" prepared to be used by the teachers and recommendations for how to deliver presentation and information for different age groups. Model lectures were delivered. Participating schools and classes (approximately 300 schoolchildren and teachers) will be making neurons in art classes based on the information and tips provided in educational material for teachers. This is the second prepared material, first it was made and distributed in the BAW 2009 about "Brain health". Both educational materials will soon be made

available to download. The project that started during BAW 2010 will end on the 10th of October on World Mental Health Day with an exhibition.

The weakness of this year BAW events was coordination deficiencies which led to delays in producing final art work. We did not take into account that volunteer activities in the workplaces frequently delayed the results (it requires closer supervision on site, which in this case was not foreseen) and combined with delays due to creative processes did not allow to finalize all building blocks in time. We have also had lower participation than expected. This might be due to the financial crisis although the event was free of charge. In total we have probably reached about 1000 people, but the exposure through mass media this year was much higher than in 2009 and hopefully compensates for less than planned direct participation.

The organizing and implementation team believes that the BAW 2010 was better than 2009, thanks to the funding from DANA through FENS. With the funding we were able to broaden our activities and include a new art project which can be repeated every year. Also instead of teacher volunteers we have managed to involve a network of art teachers in schools who would cooperate next year. The best is that during the BAW 2010 project new partnerships have been formed with the State Mental Health Center, the National Art Gallery and the National Coalition for Tobacco and Alcohol Control which will immensely strengthen the team for the next year. International events like the BAW do help raise understanding of neuroscience among the general public.

14. Brain – The never-ending story / Poland, Lublin

Dates and Duration: 19 - 21 March, 2010

<u>Contact</u>

Anna Kaczmarek The Scientific Association of Psychology Students Psychology Institute The John Paul II Catholic University of Lublin Aleje Racławickie 14 20-950 Lublin, Poland Phone: +48 081 445 3402 Email: annakaczmarek90@wp.pl

The Days of the Brain were held on 19th – 21st March 2010 at the John Paul II Catholic University of Lublin. In this year we celebrated the 5th anniversary of The Days of the Brain in Lublin and the 15th anniversary of the International Brain Awareness Week. At the beginning of the conference there were several workshops organized. Subjects of these included eye tracking, psychoneuroimmunology and neurofeedback therapy. On the first two days a lot of well-known and

respected scientists gave their lectures:

- Prof. Marian Lewandowski: Biological clock it concerns all of us
- Prof. Małgorzata Kossut: Neuroplasticity and neurorehabilitation
- Prof. Elżbieta Pyza: Ageing genetical and environmental aspects
- Prof. Andrzej Klawiter: How does an image modify the perception of sound about senses integration
- Prof. Anna Herzyk: What do we do about consciousness thanks to the apparatus for measuring the brain's activity, (EEG, fMRI)
- Dr. Tomasz Komendziński Przemysław Nowakowski: The body that we can see multimodal strategy vs. unimodal beginnings
- Dr. Małgorzata Gut: Biological and cultural basics of left-handedness why certain people prefer using the left hand?
- Prof. Ferdinand Binkofski: Tactile agnosia and apraxia (Lecture in English)
- Dr. Piotr Przybysz: Social mind and its normative modules how does our brain control the moral cognition
- Prof. Włodzisław Duch: How do we make a decision? World without the free will
- Mgr. Bibianna Bałaj: Eye-movements and rotation of imagination advantages and limitations
- Dr. Piotr Francuz: "Eyes are the mirror of the soul" about eye-movements in imagination tasks

The event gained high attendance of students, candidates for doctor's degree as well as professors and medicine doctors. Everyone was very impressed and confirmed a visit in the next year.





15. BAW 2010 in Warsaw / Poland, Warsaw

Dates and Duration: 15 - 19 March, 2010

Contact

Dr. Waleszczyk Wioletta, Ph. D., D. Sc. Prof. Jolanta Zagrodzka, Ph. D., D. Sc. Andrzej Foik, M. Sc. Nencki Institute of Experimental Biology Department of Neurophysiology 3 Pasteur Street 02-093 Warsaw, Poland Phone: +48 22 5892444 (W.Waleszczyk) Email: w.waleszczyk@nencki.gov.pl

We have organized a series of lectures, competitions for children and a media campaign. The lectures attracted secondary school pupils, teachers, university undergraduates and PhD students as well as the general public. The room was full with about 200 and 300 people at every lecture. The lectures were met with great interest and were followed by numerous questions and endless discussions. Two lectures were transmitted via the internet. One of the recorded lectures will be available on the BAW in Warsaw website (www.ptbun.org.pl/tm2010).

Programme: Monday **Neuroplasticity and Neurorehabilitation** Prof. Małgorzata Kossut Tuesday The quest for mechanisms of visual perception Prof. Andrzej Wróbel Wednesday Neuroenhancers and shaman's herbs - cogito?, ergo sum?? Prof. Jolanta Zawilska Thursday The Janus Face of Neural Stem Cell Dr. Leonora Bużańska Friday Eating disorders - anorexia and bulimia Prof. Irena Namysłowska Venue: Polityka editorial office, 6 Słupecka St. Warsaw

Competitions for pupils:

We know, by several years of experience, that competitions related to the BAW are very popular among pupils and secondary school students.

This year we have organized four competitions:

- 1. for designing a poster of Brain Awareness Week in Warsaw,
- 2. for designing a web page of the Brain Awareness Week in Warsaw,
- 3. for writing a "neuronal" song,
- 4. for writing an essay on the topic "Polish neuroscientists and their achievements".

The best works were awarded and awards were presented before the BAW lectures. The poster and web page winner will show the official poster/web page during the BAW 2011 in Warsaw. To make competitions more attractive for young people, we invited other specialists apart from known Polish neuroscientists representing different fields as well. We invited graphic designer, the computer scientist from the Institute of Informatics of the University of Warsaw, the chairman of the Polish Children's Fund (an organization which aims to help highly gifted pupils), IT specialists from known internet portals, members of music bands, two editors of the weekly magazine Polityka and a science-fiction author.

Media campaign:

Announcements about the event appeared in newspapers, magazines and on many websites. We have also organized a chat with one of the lecturers in the most know Polish internet portal Wirtualna Polska. During the time of the BAW in Warsaw, neuroscientists participated in many Polish RADIO and TV programmes.





Lecture room

Exhibition of children posters



Prof. Małgorzata Kossut during her lecture: Neuroplasticity and Neurorehabilitation.

16. A ride into perception / Portugal, Coimbra

Dates and Duration: March 14 - 28, 2010

<u>Contact</u>

Maria Teresa Girão da Cruz, Ph.D. Center for Neuroscience and Cell Biology (CNC) Science Communication Office Largo Marquês de Pombal, University of Coimbra 3004-517 Coimbra Portugal Phone: +351 239 111 434 Email: mtgirao@cnc.uc.pt

In Portugal the BAW 2010 focused on the theme "Art and the Brain". In order to address this subject several events took place for the general public: 1) Art and the Brain - A Scientific Photo Exhibition; the exhibition took place at a shopping centre in Coimbra; the microscopy images were obtained by CNC researchers; a children's orchestra concert took place at the exhibit opening. 2) The closing ceremony of the BAW 2010, in Portugal, had the contribution of CNC, and a Baroque music concert took place; the concert was commented by experts in neurosciences, psychology, and music.

Our programme included a variety of activities for school-age children: 1) Neuroscientists go to Schools; during this event neuroscientists visited schools from the region and gave lectures on brain related subjects to high school students; elementary and middle school students had the opportunity to perform several hands on activities related to the five senses. 2) Open Laboratories; during this event students visited CNC's laboratories; they also had the opportunity to listen to talks about the investigators' topics of research. 3) Art and the Brain at the Science Museum; at this venue CNC researchers guided school visitors through hands-on activities about the five senses. The total audience was 1625 students from 19 schools. 73 CNC researchers took part in the activities.





17. "What goes on in your mind?" - Brain and art / Portugal, Lisbon

Dates and Duration: 19 March, 2010

<u>Contact</u>

Luisa V. Lopes Instituto de Medicina Molecular Neurosciences Unit Av. Prof. Egas Moniz 1649-028 Lisboa, Portugal Phone: +351 21 7985183 Email: Ivlopes@fm.ul.pt

The project title was "What goes on in your mind?". We organized an open day at the Institute, from 9.30 am till 5.30 pm, targeting six schools with 20-30 students each in a total of 235 secondary grade students, age ranging from 15 to 17. The activities were divided in four main areas:

1) Wall mural – it was set up early in the morning with pens and colored paper at disposal to the students. They were motivated to create their own art work related with neuroscience. At the end of the day, the mural was photographed and will be later printed onto postcards to be distributed to the participating schools. Each school will receive 200 postcards.

2) Science fair – we had six booths with scientists and students. They were invited to perform their own experiments, to conceive the hypothesis, design the protocol and draw conclusions. The following activities were suggested:

- Testing senses changing light levels, temperature, tastes and flavours
- The influence of the environment on memory
- Microscope observation of nerve cell preparations
- Observing the brain
- Brain quizzes
- Cell models of pathology
- Neuronal development

3) Film projection – this took place inside one of our amphitheatres (capacity to 100 people). We had four sessions (20min each) during the day showing one of the two different movies available through the Portuguese Society for Neuroscience web site (Vision - Light and Neuronal Activity or Action Potential and Epilepsy).

4) Photo exhibition – Throughout the Brain Awareness Week we displayed the best neuroscience imaging photos from our scientists (a total of 16) with the respective legend and scientific context in the hall of the Institute.

18. BAW at "Socola" Hospital Iasi, Romania- Brain for life / Romania, Iasi

Dates and Duration: 15 - 21 March, 2010

<u>Contact</u>	Cristinel Stefanescu MD, PhD,
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The Brain Awareness Week event organized in Socola Hospital was a real success. Over 150 people took part in the event including students, doctors, patients and the general public. For the event we organized a series of interactive activities with different topics related to the brain that included new aspects regarding brain pathology, diagnosis, treatments and management, etc.

The oral presentations were completed by short videos, pictures and printed materials. Also, the auditory had the opportunity to assist some psychiatric and psychological testing and interviews. The medical students had the opportunity to make psychiatric and psychological exams and further interesting clinical cases were presented and discussed. Some enthusiastic students applied scales on patients (ex. Mini Mental State Examination was applied on a demented patient). Participants told us at the end of the week that they felt very lucky to have participated in the Brain Awareness Week. Some of the students showed interest in choosing the field of psychiatry as a future specialization.

Monday, 15 March: After reviewing several aspects related to motor deficit, Dr. Joacabine presented suggestive videos with patients suffering from different motor deficits. Videos and images presented included: movement disorder, changes in muscle tone, muscle strength, semiology, altered reflexes, topographic diagnosis, etc.

Tuesday, 16 March: Dr. Adrian Cantemir presented some important aspects related to dementia (prevention, early diagnosis, scales, treatment, etc) to the auditory. At the end of the presentation, students applied scales on patients with dementia.

Wednesday, 17 March: After a complex oral presentation held by Dr. Roxana Branzei regarding temperament and personality disorders, each participant had the opportunity to identify its temperament according to the charts of Robert Cloninger. At the end of the presentation, Roxana Branzei made a psychological examination on a patient with a personality disorder.

Friday, 18 March: Dr. Irina Dobrin presented some aspects regarding depression. In addition, several cases of depressed patients were presented and discussed.

Saturday, 19 March: Dr. Cristinel Stefanescu presented the General Management of Psychiatric Disorders. This presentation was especially dedicated to the patients and their relatives. The patients also received information, tips and practical advices regarding their pathologies. In addition,

we offered them useful printed booklets and brochures containing simple advices regarding the cognitive preservation.

On Sunday patients had the opportunity to watch several instructive videos, related to prevention in brain diseases.

All the participants in the event received scientific books, journals and booklets (including Dana and FENS-IBRO specific materials, like "Brain Facts", "Cerebrum" and "Science of the Brain-an introduction for young students". Also, each student received a certificate of attendance.







19. The Brain in Love, Happiness and Passion / Slovenia, Ljublana

Dates and Duration: March 15 - 20, 2010

<u>Contact</u>

Martina Starc SiNAPSA, Slovensko društvo za nevroznanost Inštitut za patološko fiziologijo Zaloška 4, p.p. 2218 SI-1000 Ljubljana, Slovenia Email: martina.starc@gmail.com

BAW 2010 comprised several activities across Slovenia. Most of them took place in Ljubljana, but there were lectures and workshops in 7 other towns as well. In Ljubljana, Monday was dedicated to the press conference, videos and lectures on this years' theme "The Brain in Love, Happiness and Passion". The programme for children entailed both educational and creative workshops on Tuesday and Saturday. Wednesday was our "Top 10" event where we presented neuroscientific research findings that had the greatest impact in the previous year. Thursday was dedicated to pleasure both in health and disease or disorders. On Friday we organised a round table with 5 experts from different backgrounds discussing happiness. Each day was also accompanied by movie projections and talks explaining the movie from a neuroscientific point of view (8 altogether). Last but not least – the renewed website (www.sinapsa.org) will keep on supplying the general public with information on the brain throughout the year.



BAW lecture in Ljubljana

Statistics on the event

Event	Attendance
Movie projections (8)	90 per movie
Workshops for kids (3)	30 altogether
Lectures in Ljubljana (4)	100 per day
Lectures in other town (7)	15 – 100 per lecture
Press conference	10 journalists
All events together	1500

The attendants evaluated each lecture or other type of event on a 1-5 scale. The average grade of all events was **4,32**. The webpage saw a **113%** increase in visits during the BAW.

20. Sustained neurons for cerebral functional reserve-capacity / Spain, Murcia

Dates and duration:

December 2010: Contest of Posters for the BRAIN AWARENESS WEEK 2010. February 28, 2010: Result of the Winners and exposition. March 15 - 18, 2010: Conferences, visits, discussions and colloquiums.

<u>Contact</u>

Prof. María-Trinidad Herrero University of Murcia, School of Medicine Human Anatomy & Psychobiology Clinical & Experimental Neuroscience - CIBERNED Campus Espinardo 30100 Murcia – SPAIN Phone +34 968 36 46 83 Email: mtherrer@um.es

The DANA Foundation contribution has been recognized in all the printed materials, as well as in publicity surrounding all the presentations of the events. The venue for the BAW was the Royal Academy of Medicine of the Region, its headquarters are on the second floor of the Archeological Museum in the center of the city. The delegate of the Ministry of Health of the Region, authorities of the Royal Academy of Murcia and of the University as well as the Presidents of the different foundations were all present at the opening ceremony. Many journalists and TV teams accompanied the event. The General Director of Medical Research of the Region, the President of the Murcia Society of Neurology and the Vice-President of the Spanish Society of Neurology were present at the Closing Ceremony.

We had the economic support from the HEFAME Foundation, Andromaco-Grunenthal and the Society of Neurology of Murcia.

We had various goals concerning the events such as the promotion of public understanding of neuroscience and the general diffusion talking about neuroscience and the brain. All the invited speakers used a simple, general but scientific language so that the people present could follow easily. The talks were interactive and the discussion at the end of each talk was long and interesting. More than 400 people attended the activities during the week. These visitors were of different ages: from high school students (more than 200), students of medicine interested in the nervous system (more than 50) and adult people from different associations: Parkinson's disease, Alzheimer's disease, Schizophrenia and aged-people associations (as previous years). One positive goal we also achieved was the commitment to organize several talks in different high schools of the region along the year. Moreover, several students were very interested in nervous system research and we are organizing short stages for them in three labs of the university for the upcoming summer.

21. Brain and Art: The creative Brain / Spain, Barcelona

Dates and Duration: March 15 - 21, 2010

<u>Contact</u>

Fundació Privada Centre de Regulacó Genomica Doctor Aiguader, 88 08003 Barcelona, Spain Phone: +34 93 316 01 40 Email: mara.dierssen@crg.es

We organized 10 activities for the general public including debates, round tables, science spectacles, neuroconcerts, workshops and a brain fair in which 200 scientists (predocs, postdocs, IP) and volunteers were involved. We addressed important social themes such as drug abuse, neurogenetics, states of consciousness, brain diseases etc. We combined workshops, experiments, art, spectacles, expositions, contests etc. for the public. The practical workshops were conducted by using performance art elements to involve the audience with taste, smell and sound not available with electronic media.

Further, we organized more than 40 school activities, in which more than 50 scientists were involved. Our work during these years has been very important in increasing scientific vocations among young people. Also the media deserves much more attention to these aspects year by year. However, an effort has to be done to help the scientists to develop these activities with support and recognizing science dissemination as an important part of the CV.



22. Brain and fun: Interactive Learning for Kids / Sweden, Lund

Dates and Duration: March 19, 2010

<u>Contact</u>

Jennifer Steiner and Christel Thunell Neuronal Survival Unit, BMC A10 Sölvegatan 17 22184 Lund Sweden Phone: +46 46 222 85 16 Email: Jennifer.Steiner@med.lu.se

We found a school whose administrators and teachers were excited about Brain Fun. We targeted children aged 6-11, and it was a delight to see the children show their arriving parents the booths at the end of the event. We purchased many items that we then modified for use at the Brain Fun booths. We had eight booths in total, and two adult volunteers staffed each booth:

1 and 2) Brains! Cow eye dissection and optical illusions The children wore gloves and touched a sheep brain, a rat brain, and a mouse brain, examining the differences. They also examined a section of human brain embedded in plastic. We dissected calf eyes for the children, who could again wear gloves and hold pieces of the eyeball.

3-6) Touch, Hearing, Taste, Smell Booths These booths focused on isolating and testing the senses of the children.

7) Reflexes and reaction time Blink and knee jerk reflexes

8) Build a neuron/color a brain hat

We have solicited feedback and are eager to plan Brain Fun 2011!

23. Brain Research: News in Basel / Switzerland, Basel

Dates and Duration: March 15 - 18, 2010

Contact

Neuroscience Network Basel (NNB) Competence Center of the University of Basel Institut für Psychologie Missionsstrasse 60/62 CH - 4055 Basel Switzerland Phone: +41 61 267 0597 Email: neuro@unibas.ch www.neuronetwork.unibas.ch

The objective for the Brain Awareness Week 2010 was to present the public the broad scope of questions studied by the neuroscientific community in Basel, and the various approaches taken in the search for answers. This research overview included presentations ranging from basic studies (neurite growth; synapse connection) to medical questions (headache – aching head; cerebral palsy) over to the new field of social neuroscience. Special attention was paid by the organizers to draw a comprehensive bow over the broad topics. The talks were invariably followed by very lively discussions between the speakers and the audience. Approximately 1000 people visited the events. During the week the anatomical museum offered the special exhibition "Das Gehirn ist eine Reise wert" guided tours and workshops for children. The general public was reached via daily ads in the local newspaper and via interview on the local radio. The BAW also has a large high fidelity public attending the events yearly and usually more than once per week. The events are also promoted by some school teachers who encourage their students to attend. The public was also referred to our website (http://www.neuronetwork.unibas.ch/brainweek10) where further information is provided and the presentations can be downloaded. A scientific bookshop (Karger Libri AG) presented a choice of books and offered a list with continuative literature.

24. Neuroscientists at School / The Netherlands, Rotterdam

Dates and Duration: March 15 - 19, 2010

<u>Contact</u>

Dutch Neurofederation Britta Hansen Erasmus MC, Room EE 1202 P.O.Box 2040 3000 CA Rotterdam The Netherlands Phone: +31 61 024 1895 secretariat@neurofederatie.nl

Neuroscientists at School is a project where about 100 Neuroscientists (PhD students, staff members, full professors) talk about and present their research in 5th and 6th grade high school classes. The exact format of these presentations varies. Some teach one class for an hour, others give larger presentations to larger audiences. The reactions from the students and their teachers have been very positive. One neuroscientist reported that her presentation was received so well, that she was asked to give the same lecture impromptu to the next class that was scheduled in that classroom.

25. Let's explore the Brain and Sense Organs / Turkey, Eskisehir

Dates and Duration: March 19 - 29, 2010

<u>Contact</u>

Prof. Ferhan ESEN Department of Biophysics Faculty of Medicine Eskişehir Osmangazi University 26 480 Eskişehir, Turkey Email: fesen@ogu.edu.tr

The objective of this project is to familiarize children with their cerebral functions in an ageappropriate and fun filled way to know and understand their brains. We have planned several activities to make the children aware of their brains' importance and, to inform about life saving actions by wearing helmets and seatbelts, eating well-balanced meals and getting enough sleep for healthy brain.

We are very grateful for the financial support that allowed us to use the scientific tools in this project. The funds were used to purchase the 3-D brain models that we will re-use in future BAW activities. We used pages from the Neuroscience colouring book for the colouring activity (http://faculty.washington.edu/chudler/colorbook.html). We also used tips, advice and experiments from the BAW resources, "It's Mindboggling", "Q&A on Brain Research" and "Staying Sharp". I introduced the subject to the children by using a powerpoint presentation emphasising that the brain is able to see and hear and can also detect things by smelling tasting and touching.

The following activities were carried out in collaboration with the teacher, Yasemin Kazan.

- Learning that different parts in the brain have different functions, the children made their own brain models with coloured play dough.
- Every child drew how they imagine their brain and they coloured various brain, neuron and sense organ pictures from "Neuroscience for Kids".
- The children played with a variety of 2D brain/neuron puzzles and 3D brain models to recognize different brain structures and functions.
- Short talk about brain protection, the egg example had strong influence on the children.
- Brain, music and dance: Learning the cerebral function in coordination of movements with music kept the children very interested
- Food recognition game: one blind-folded child was trying to guess what type of food he/she touched. The blind-folded children also tasted to recognize the foods.

26. BAW 2010: What Are You Thinking? / United Kingdom, Newcastle

Dates and Duration: March 15 - 21, 2010

Contact

Prof. Anya Hurlbert, Prof. Colin Ingram and Laura Batty Institute of Neuroscience Newcastle University Faculty of Medical Sciences Framlington Place Newcastle upon Tyne, NE2 4HH, UK Phone: +44 191 222 7638 Email: anya.hurlbert@ncl.ac.uk

Dancing, imagining the future, making brain waves, and seeing through illusions are some of the diverse activities people took part in during Newcastle's Brain Awareness Week 2010. The Institute of Neuroscience hosted Professor Nicky Clayton, who led a class (of 30) in movements learned from bird behavior, at Dance City (see Figure 1), and then delivered a riveting public lecture (to about 300) on the ability of children and birds to predict others' behavior by 'mental time travel'. At the University's Science in the City Open Day, the Institute ran a highly popular interactive exhibit, 'What Are You Thinking?', where people (several hundred in total) learned how to control computer games using their EEG or EMG signals (see Figure 2), and listened to lectures on how we see faces and illusions held by Prof. Vicki Bruce and Dr. Jenny Read.



Prof. Nicky Clayton (far right) leads a diverse group in a dance that mimics bird behaviour.



'What Are You Thinking?' Interactive exhibit at Newcastle University Science Open Day. People of all ages were wired up to control computer games remotely, using their own brain waves through EEG technology or their muscle activity through EMG recordings.

27. Nerve Cell Communication and disease talk using brain models and props for talks during Brain Awareness Week in primary and secondary schools / United Kingdom, Sheffield

Dates and Duration: March 19 - 26, 2010

Contact

Dr. Jamie L. Weiss Principal Investigator and Lecturer The University of Sheffield Biomedical Science, Addison Building Western Bank, Sheffield S10 2TN United Kingdom Phone: +44(0)114-222-2326 Email: j.l.weiss@sheffield.ac.uk

I visited 4 schools and gave an interactive talk entitled "Nerve Cell Communication and Disease". We also had volunteers come up from the audience for the interactive parts of the talk. Students come to the front to demonstrate tests, which are used by doctors to find out whether a patient has fine motor control problems. Students formed a synapse or neuronal network where each student represents a synaptic vesicle or neuron and each beanbag represents a neurotransmitter. These activities help students to understand how neurons pass messages on by using neurotransmitters. Brain models were used to demonstrate neuroanatomy and to point out which parts of the brain are affected in certain diseases. We also had a questions and answer session and after the students could handle the brain models and mutant flies. The talks were very successful and we had more students volunteering and asking questions then we were able to accommodate.

