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International Brain Research Organization

IBRO CREATES MENA SUB-REGION, FORMALIZING ITS SUPPORT OF MIDDLE EAST AND NORTHERN AFRICA NEUROSCIENCE



IBRO officers and staff welcomed members of the new IBRO MENA (Middle East / Northern Africa) Sub-Region during the Society for Arab Neuroscientists Social in New Orleans on October 14, 2012.

A grassroots organization, IBRO carries out its activities through its regional committees and hundreds of volunteers covering the globe; now there is a new, official Sub-Region focused on the specific needs of the MENA (Middle East / Northern African) region that will serve to further enhance the infrastructure for neuroscience research there. As with the other IBRO regions, the MENA Sub-Region will have a direct voice in defining its own needs and priorities in neuroscience research and education.

"As the IBRO Asia-Pacific region is exceptionally large, spanning from New Zealand to Jordan, and because it is heterogeneous in many ways, the idea was originally put forth to consider creating a region or geo-political entity to enhance opportunities particular to this sub-region," said IBRO Secretary-General Pierre Magistretti. The new IBRO-MENA Sub-Region was officially launched at the IBRO-MENA Sub-Region Inaugural Meeting, held in Tunis, Republic of Tunisia, on October 4, 2012. An official ceremony on October 14 marked the event, held during the Society of Arab Neuroscientists Social at the Society for Neuroscience meeting in New Orleans, USA.

The launch of this new Sub-Region is the culmination of efforts by a group of MENA region-based neuroscientists of Arab descent – working both locally and abroad – and the leadership of IBRO to identify actions that could be taken to provide enhanced opportunities within the Arab-speaking world for young investigators pursuing a career in neuroscience research. However, neuroscientists in this new Sub-Region will continue to collaborate with the IBRO Asia-Pacific and Africa regions, to which they still belong.

"For the past several years, Professor Magistretti and I have been convinced that an organization such as IBRO could be instrumental in helping to shape strategies by leveraging its international network of contacts, providing seed funding and tools, and communicating with the right individuals in order to start a long-term program that represents and serves all the countries throughout the Arab-speaking world," said IBRO President Carlos Belmonte.

The founding IBRO-MENA Committee will be chaired by Omar El-Agnaf (United Arab Emirates) and consists of Abdu Adem (United Arab Emirates), Fayçal Hentati (Republic of Tunisia), Nayef Saadé (Lebanon), and Abdulmonem Al-Hayani (Kingdom of Saudi Arabia), who have played a critical role in establishing the Sub-Region. Their mandate will be of the same duration as other IBRO regional committees.

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IBRO pays tribute to Dargut Kemali and pledges to continue his Foundation's work

With the passing of Dargut Kemali in December 2011, IBRO has absorbed the Dargut and Milena Kemali Foundation for Research in the Neurosciences. According to Prof. Kemali's wishes, IBRO President Carlos Belmonte has assumed the role of Chair of this foundation, renamed the Kemali-IBRO Foundation, which is dedicated to extending cultural bridges through science between continental Europe and non-European Mediterranean countries. Prof. Belmonte has confirmed that the Kemali Prize Lecture (held in even-numbered years) and the Kemali-IBRO Neuroscience School (held in odd-numbered years) will continue as before.



Marina Bentivoglio (left) and Carlos Belmonte (right) with Dargut Kemali, who generously bequeathed his estate to IBRO to continue to build networks of collaboration and friendship between young, promising neuroscientists coming from different regions.

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IBRO launches Global Advocacy Initiative in partnership with other neuroscience organizations

As a global neuroscience federation dedicated to the promotion of neuroscience around the world, the International Brain Research Organization (IBRO) was chosen by several leading neuroscience societies to lead a collaborative effort in support of advocacy programs across all the world's regions. The IBRO Global Advocacy Initiative was launched in 2012 to facilitate the development of culturally relevant educational and motivational programs that will garner wider support for neuroscience research across the world.



Leading the IBRO Global Advocacy Initiative is IBRO Secretary-General Pierre Magistretti (on the left), with IBRO Secretary-General Elect Sten Grillner (on the right).

While medical progress and improved living conditions have generally increased life spans across the globe, an aging population brings unprecedented challenges to our medical systems and society at large, with neurological issues such as Alzheimer's threatening to ratchet up healthcare costs beyond individual countries' ability to afford them. What's more, in many parts of the world neurological diseases such as epilepsy are not well understood or even accepted as underlying causes of disability. It is because of these issues that people – from politicians and policy-makers to parents and children – must understand the importance of brain research and how it can benefit human life. However, even in the most developed countries, policy-makers often see neuroscience research as a rival that could draw funding away from other big issues such as climate change and economic crises, despite the reality that none of these issues can truly be addressed without human brain power.

"With effective advocacy, greater political will and enhanced global cooperation, neuroscience will make faster progress for the benefit of all humans."
— Pierre Magistretti

The mission of the IBRO Global Advocacy Initiative is to build support among key policymakers and other opinion leaders for increased resources for research and public education concerning the brain and the nervous system, in both health and disease and from early development to aging.

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IBRO FUNDING 2012 - 2013

IBRO provides Return-Home funding after post-doc trainings abroad

In 2013, four more promising young researchers who have completed post-doctoral training at high-quality laboratories overseas will receive "start-up" funding from IBRO to establish laboratories back in their home countries. IBRO launched the Return Home Program in 2006 to counteract "brain drain" and to promote the growth of quality neuroscience research in developing regions of the world. The following young scientists will receive an IBRO Return Home award of 20,000 EUR:

James Olopade will return to the University of Ibadan (Nigeria) after post-doctoral studies at both Penn State College of Medicine (the United States) and the University of Wuerzburg (Germany). Through his research projects, he found that Nigerian crude oil is rich in vanadium, which can enter the brain via inhalation and also through breast milk. Vanadium leads to low body weight gain, reduced brain weight, increased brain vanadium content, cell membrane damage, and consequent brain demyelination (that is, the loss of the myelin sheath insulating the nerves, which is the hallmark of several neurodegenerative autoimmune diseases, including multiple sclerosis). Dr. Olopade said that once back at the University of Ibadan, "my research plan is to continue work in the laboratory on the mechanisms of vanadium induced neurotoxicity in the brain and also to screen and develop purified extracts from local plants that will have chelative and antioxidative properties on vanadium."



Zeljka Krsnik will return to her native country of Croatia after working in the United States, studying the development and reorganization of the human cerebral cortex: "After six years of postdoctoral training at the Department of Neurobiology, School of Medicine at Yale University, I decided to return to Croatia and continue my research at the Croatian Institute for Brain Research (CIBR) in Zagreb, where I started my career under the supervision of Professor Ivica Kostovic," said Dr. Krsnik. "I truly hope that with the invaluable help of the IBRO Return Home Fellowship and collaborating with other groups at CIBR, I can make a contribution to a challenging question of the perinatal reorganization of the human brain that will in due course have clinical significance in improving treatment of children born with perinatal brain damage."

Pedro Bekinschtein will return to the University of Buenos Aires (Argentina) after three years of post-doctoral work at the University of Cambridge (UK), focused on neurobiological mechanisms involved in memory and pattern separation in the medial temporal lobe. "Cambridge is an amazing place to do science! I found the Department of Experimental Psychology to be a very stimulating environment and I definitely increased my knowledge about cognitive neuroscience and behavior in a broader sense," said Dr. Bekinschtein. "By introducing novel tools, animal models and expertise to my home institution, the University of Buenos Aires, it is my hope that both colleagues and students will feel stimulated to pursue novel and cutting-edge research avenues in Argentina, a country with a great scientific tradition but chronically ridden by socio-economic crisis and lack of proper scientific funding."



Xiao-Dong Wang, who studies the neurobiological basis of psychiatric disorders, will return to China and establish a laboratory at Peking University's Institute of Mental Health. He is particularly interested in how stress shapes the development and plasticity of the brain and behavior. For the past three years Dr. Wang has worked at the Max Planck Institute of Psychiatry (Germany), where his research supervisor, Prof. Mathias V. Schmidt, had this to say about him: "Xiao-Dong is a devoted and creative young scientist, and his contributions have been invaluable to our projects. Hard-working and prolific, he has four first-authored and eight co-authored papers published in internationally recognized journals. There is no doubt that Xiao-Dong's intellectual and academic abilities surpass those of most students that I have known. I believe he can efficiently initiate and manage innovative research projects, and he has the potential to become an excellent scientist in this field."



IBRO Young Investigators benefit from visits to Spanish labs

The 2012 Young Investigators Programme (YIP) followed the very successful initiative begun at the 8th IBRO World Congress in 2011. This year, the IBRO Western Europe Regional Committee (WERC) supported 43 short stays in Spain for young investigators, from countries with limited resources, at the time of the FENS Forum in Barcelona, Spain.

These short-stays in Spanish laboratories – lasting up to one month – allowed guest young investigators to meet senior and junior scientists and to get familiar with the laboratory's environment, facilities and techniques in different fields of brain research in order to favor future exchanges and networking. The 2012 Young Investigator Visiting Program was coordinated by Mariella Chertoff of the Institut de Neurociències UAB (Barcelona).

"Thanks to the YIP, I was able to participate for one month in laboratory work carried out by the Molecular Neuropsychopharmacology of Stress Related Diseases Research Group at Complutense University, Madrid, where I was able to observe various ongoing projects and gain knowledge of biochemical techniques that were novel for me, like western blotting and radioimmunoassay."

– Klaudia Szklarczyk
First-year PhD student at the Polish Academy of Science



IBRO announces its 2013 Research Fellows

IBRO has awarded three promising young neuroscientists with one-year research fellowships in order to broaden the scope of their training by working abroad in high-quality laboratories:

Joman Natsheh, MD, the 2013 IBRO Dargut Kemali Fellow, is from Al-Quds University (Palestinian Territories), where she studies the cognitive correlates of depressive symptoms across neurological and psychiatric disorders. With the IBRO Research Fellowship, she will work for the Rutgers Memory Disorders Project at Rutgers-Newark University (USA), under the supervision of Prof. Mark Gluck, focusing on how natural allelic variation in certain genes affect learning and memory abilities.



Tounes Saidi, PhD, the 2013 IBRO Rita Levi-Montalcini Fellow, studies diabetic retinopathy at the Higher Institute of Biotechnology of Sidi Thabet, Tunisia. With the IBRO Research Fellowship, she will work at the Institute of Neurobiology of Rhythms at INSERM (France), under the supervision of Prof. David Hicks, on cellular and molecular mechanisms underlying retinal function and pathology.



Pablo Barrionuevo, PhD, the 2013 IBRO John G. Nicholls Research Fellow, is an electronics engineer who studies the computational model of brightness of mesopic stimuli under glare conditions at the UNT (Tucuman National University) - CONICET (National Council of Scientific and Technical Research), Argentina. With the IBRO Research Fellowship, he will work at the Visual Perception Laboratory at the University of Illinois at Chicago (USA), under the supervision of Prof. Dingcai Cao, on the processing of rod-cone interaction in mesopic vision.



International Brain Research Organization

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Who is behind the funding decisions at IBRO?

The IBRO Fellowships, Travel Grants & Return Home Program Committee – chaired by Marta Hallak – brings a local perspective to decisions made in all of IBRO's centralized funding programs. Because the Committee comprises IBRO Regional Committee Chairs, they can tap into the knowledge of local neuroscience programs and training needs to ensure that the most promising and most deserving candidates are selected to receive IBRO funding awards. At the same time, Prof. Hallak works hard to provide a balanced geographical representation and a fair distribution of funds to create career-enhancing opportunities for as many young neuroscience researchers as possible. Within the past two years, the Committee has (together with help from their Regional Committee members) reviewed more than 1600 applications for funding through IBRO's centralized funding programs.

Important Funding Deadlines

- IBRO International Travel Grants (July – December 2013): Mar. 1, 2013
- Sfn-IBRO Travel Grants, 2013: Mar. 1, 2013
- IBRO Research Fellowships, 2014: Mar. 1, 2013
- IBRO International Travel Grants (January – June 2014): September 1, 2013
- IBRO Return Home Program, 2014: September 1, 2013

Check online at www.ibro.info for the deadlines of IBRO's Regional Funding Programs:

- IBRO-Asian/Pacific Exchange Fellowships
- Europe: InEurope Short Stay Grants and Symposia/Workshops funding
- Latin America Region: Short Stay Fellowships, Travel Grants, Schools and Symposia/Workshops funding
- International Fellowships to Marine Biological/Cold Spring Harbor Laboratories, USA



IBRO ALUMNI IN THE SPOTLIGHT

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IBRO Alumni Committee connects and raises profiles of its young investigators across the globe

To a young neuroscience investigator, making the right connections can spell the difference between a brilliant career and one that never gets off the ground. The IBRO Alumni Committee provides opportunities to connect promising young researchers to potential collaborators and mentors, whether through its networking events, the IBRO Alumni Facebook page, or financing IBRO Alumni speakers at national and regional meetings. The latter, in particular, is an excellent way for IBRO Alumni who have experienced success to help educate a new generation of neuroscientists – and, in the process, perhaps inspire the next rising star.



IBRO Alumni Sunday Bisong, Amaicha Mara Depino, Hailan Hu and Sergiu P. Pasca presented their research at a special symposium held during the 2012 Society for Neuroscience annual meeting in New Orleans.

In 2012, IBRO Alumni from around the world shared how they have made their mark on neuroscience through specially organized IBRO Alumni Symposia:

The role of body image and peripersonal space in pain – July 17 at the 2012 FENS Forum in Barcelona, Spain

This was the first IBRO Alumni symposium that was proposed by students from one single FENS-IBRO school. Chaired by Alumni Committee member Michael Stewart, it focused on the crucial aspect of how pain is integrated in body perception and represented only one of the collaborative projects among several of the School's alumni. Speakers included:

- **Jörg Trojan** (Central Institute of Mental Health, Mannheim, Germany), "Body perception, peripersonal space, and pain: Clinical findings and conceptual aspects"
- **Martin Diers** (Central Institute of Mental Health, Mannheim, Germany), "See your pain: site-specific visual feedback reduces pain perception"
- **Diana M. Torta** (Università degli Studi di Torino, Torino, Italy), "The neural substrates of the crossed hands analgesia"

From pluripotent stem cells to control of social hierarchy – October 14 at the 2012 Society for Neuroscience Meeting in New Orleans, USA

This symposium, chaired by IBRO Alumni Chair Susan Sara and IBRO Secretary-General Pierre Magistretti, featured accomplished IBRO Alumni from four IBRO regions who are making great progress on the world neuroscience scene:

- **Sergiu P. Pasca** (Romania and Stanford University, USA), "From induced pluripotent stem cells to neurons: capturing the pathogenesis of autism"

- **Amaicha Mara Depino** (University of Buenos Aires, Argentina), "Role of brain inflammation on the development and expression of autism-related behaviors"
- **Sunday Bisong** (University of Calabar, Nigeria), "Anti-epileptic and anti-anxiety effects of leaf-extracts of the Chinese lantern tree (*Dichrostachys glomerata*)"
- **Hailan Hu** (Institute of Neurosciences, Shanghai, China), "The neural circuit mechanism of social hierarchy"

Stress along the lifespan: neurochemical and behavioral consequences – November 7 at the 2012 FALAN Meeting in Cancún, Mexico

This symposium, chaired by IBRO Alumnus Marta Antonelli, was presented by IBRO Alumni from the Latin American region:

- **Marta C. Antonelli** (Institute for Cell Biology and Neuroscience, Argentina), "Long lasting neurodevelopmental effects of prenatal stress"
- **Paula Ayako Tiba** (Federal University of ABC, Brazil), "Early life stress and its effects on sleep, behavior and neurochemistry"
- **Cristina Marquez** (Champalimaud Neuroscience Programme, Portugal), "Peripuberty stress leads to abnormal aggression, altered amygdala and orbitofrontal reactivity and increased prefrontal MAOA gene expression in adulthood"
- **Nicole Galvão Coelho**, (Federal University of Rio Grande do Norte, Brazil), "Cross-talk of hypothalamic-pituitary-adrenal (HPA) and hypothalamic-pituitary-gonadal (HPG) axis during social stress in common marmosets (*Callithrix jacchus*)"

NEURONUS 2012 Conference, April 20-22, in Krakow, Poland

NEURONUS 2012 – a conference organized by students for students that attracted 450 neuroscientists from 15 countries – obtained financial support from the IBRO Alumni Committee, which enabled conference organizers to invite two truly outstanding IBRO Alumni from the Western Europe and the Central and Eastern Europe regions:

- **Benedikt Berninger** (Ludwig-Maximilians-Universität, Germany), "Making neurons from glia and pericytes: the wizardry of transcription factors"
- **Istvan Katona** (Institute of Experimental Medicine, Hungary), "The synaptic circuit-breaker and its breakdown in brain disorders"

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IBRO Alumni Committee leverages FENS-IBRO European Schools to benefit those outside the region

The IBRO Alumni Committee is continually looking for new and innovative ways to help enhance career-building opportunities for young neuroscience investigators, particularly those coming from more economically challenged parts of the world. Over the past several years the Committee has funded the travel of qualified young investigators from outside of Europe to participate in a FENS-IBRO European Neuroscience School.

This year, the IBRO Alumni Committee supported Veronica Pastor from Argentina to attend the FENS-IBRO Summer School "Cellular Biology of Addiction" in Barcelona, in July. According to IBRO Alumni Chair Susan Sara, the timing of the School allowed Veronica to also attend the FENS Forum in Barcelona, where she presented a poster. Veronica also spent two weeks visiting a laboratory in Spain, and it is hoped that this exposure will lead to future collaborations.



Veronica Pastor

Former IBRO Fellow Sergiu Pasca making his mark upon neuroscience

Sergiu Pasca, who received his first significant exposure to neuroscience through an IBRO Visiting Lecture Team Program course back in 2004, was the first author of a study published in the 27 November 2011 edition of *Nature Medicine*. Titled "Using iPSC-derived neurons to uncover cellular phenotypes associated with Timothy syndrome" (the illustration for which appeared on the cover of the journal), the article recaps the work Dr. Pasca undertook during his post-doctoral position at Stanford University (USA) as part of the IBRO Fellowship he was awarded in 2009. He writes:

"In 2003, as a second year medical student in Romania, I attended an IBRO neuroscience course organized by Drs Jack McMahan and John G Nicholls in Bucharest. It was during this two-week course that I decided to pursue research in neurobiology. Soon after, I became interested in autism, and with support from IBRO, I had the opportunity to begin my training in this field through enrollment in a Cold Spring Harbor course put together by top clinicians and basic scientists studying the neurobiology of autism. This experience shaped my primary goal, to pursue cutting-edge research in neurobiology aimed at uncovering the cellular and molecular mechanisms for autism and developing effective therapeutics.

"After graduating from Medical School, I very much wanted to join Ricardo Dolmetsch's lab at Stanford

University for postdoctoral training, and I immediately began to apply for funding. Coupled with the inherent riskiness of the project, as well as my lack of experience (I have no formal research training and had no experience in stem cell biology techniques), every research proposal I submitted was met with rejection. These disappointments had nearly prompted me to postpone my research career path, when IBRO awarded me the postdoctoral fellowship at Stanford University. This fellowship proved to be a critically important moment in my career trajectory as it afforded me all the opportunities that have since followed.

"At Stanford, I obtained excellent training and mentorship and I had the chance to thrive at one of the top neuroscience centers in the world. Our approach to studying autism using in vitro derived neurons from patients led to very promising results that were recently published in *Nature Medicine*, and exciting follow-up studies as well as new projects that are underway. The support from IBRO was also instrumental in the pursuit of preliminary work that has allowed me to secure additional funding (initially the Tashia & John Morgridge Fellowship, and more recently the NARSAD Young Investigator Award). These are exciting times for neuroscience research and I truly believe we are on the verge of developing a new neuropsychiatry, one that is molecularly rooted. Therefore, I stay resolute in my decision to pursue an academic career in basic and translational sciences informed by my medical background."



Sergiu Pasca



IBRO REACHES OUT THROUGH ITS COMMITTEES AND ACTIVITIES

IBRO Alumni Give Back

"Being a veterinarian specializing in laboratory animals, I approached the neurosciences from quite an unusual side. My participation in the IBRO Ethics in Research Committee allows me to encourage young researchers to make better use of animals in research by putting them in contact with outstanding professionals in animal welfare. I definitely find it exciting that each time we organize a workshop on behalf of this Committee, there are more attendees than expected, raising a fruitful discussion with the speakers and demonstrating that neuroscientists are receptive to improving the conditions of working with animals."

Silvina Diaz
2008 IBRO Research Fellow



IBRO Ethics in Research Committee promotes a more global view of ethics

The IBRO Ethics in Research Committee has worked hard over the past year to incorporate novel and varied activities into its program while continuing to evoke the Committee's goals: (1) to reach out to educate and provide information to those with little knowledge of animal research, (2) to promote ethical research guidelines for research in general, and (3) to provide specific information to more advanced groups of scientists and animal care workers that request such guidelines. Recent activities:

- **December 2, 2011:** Committee member Silvina Diaz and others organized a conference in **Buenos Aires, Argentina**, titled "Animal Welfare: Putting Argentina Inside the World Context," which included presentations on bioethics, organization of ethical committees, legal issues, and animal activism.
- **December 5-9, 2011:** Chair Sharon Juliano traveled to **Ibadan, Nigeria**, to participate in the IBRO School for Basic and Clinical Neurosciences, where she presented interactive lectures on bioethics.
- **May 26-30, 2012:** The Committee participated in the 1st Tropical Neurology Awareness and Training Week, in **Congo-Kinshasa**, providing scientific presentations that included those on the ethics of research.
- **November 7, 2012:** Committee members Pedro Maldonado and Sarah Pallas, and others, presented a workshop at the 1st FALAN (Federación de Asociaciones Latinoamericanas y del Caribe de Neurociencias) Meeting in **Cancún, México**, summarizing the status of scientific bioethics and ethics in animal research and explaining the toughest challenges, which include recognition of international regulations and homogenization of ethical practices.
- **November 14, 2012:** Committee member Silvina Diaz organized a workshop titled "Correct Use of Laboratory Animals in Research" at the Institut du Fer à Moulin Workshop in **Paris, France**. This two-part workshop covered the current European Directive for working with animals and the significance of transgenic animal models and genetic background in research, topics which held specific importance to students from Eastern Europe and Africa who had received travel fellowships to attend the workshop.

IBRO (the International Brain Research Organization) is the global neuroscience federation dedicated to the promotion of neuroscience and communication between brain researchers around the world, with special emphasis on assisting young investigators in the developing world. Incorporated in 1961, IBRO now counts more than 80 member societies in over 60 countries around the world, with a membership of more than 75,000 neuroscientists.

IBRO Women in World Neuroscience promote their cross-continental mission

During 2012, the Committee on Women in World Neuroscience (WWN) continued to support a number of major initiatives around the world to promote its mission and to create training and networking opportunities for women neuroscientists around the world, with special attention to women in disadvantaged regions. Chaired by Emmeline Edwards, IBRO WWN Committee members organized and/or sponsored the following events spanning the continents of Africa, Asia, North America, South America, and Europe:

- A special session devoted to the role played by women in the development of neuroscience was held at the First Iberoamerican Neuroscience Conference, March 9-10, in Tolima, Colombia.
- In partnership with the NIH Fogarty International Center and Funda ConCiencia, WWN sponsored a forum titled "The Role of Women in Rebuilding Haiti – Perspectives from Neuroscience" on April 27.
- On June 11, a satellite meeting of the Organization of Human Brain Mapping was held in Beijing, China, featuring a moderated science policy forum that addressed the many challenges encountered by women neuroscientists across Asia.
- Mentoring circles – bringing together International IBRO Travel Grant recipients and members of the IBRO WWN Committee – were held during the FENS Forum in Barcelona, Spain, and during the Society for Neuroscience annual meeting in New Orleans, USA.



Dr. Angelina Kakooza, WWN committee member, organized a successful symposium highlighting problems and possible solutions for young women wishing to enter the field of neuroscience in Uganda and also throughout Africa, as a whole.

- On July 27, a symposium sponsored by the IBRO WWN highlighted problems faced by women joining the neuroscience field in Uganda and offered culturally relevant solutions to barriers in joining neuroscience programs.
- A mini-conference for high school girls was held on September 25 in Cape Town, South Africa, aimed at inspiring young women to become future leaders in neuroscience.
- On October 13, the IBRO WWN sponsored a satellite symposium titled "Neurological Responses and Gender Differences," which featured a discussion on the implications of a proper study the design, the importance of data collection and the need for increased focus on gender disparities in research, as well as the need for differential treatments.
- The IBRO WWN sponsored a daylong symposium titled "Opportunities and Challenges for Women Scientists in India," on November 13 at the National Institute of Mental Health and Neuro Sciences in Bangalore, India.

Results of CEERC & WERC elections announced

IBRO welcomes the following new or re-elected members to the Central & Eastern Europe Regional Committee (CEERC) and Western Europe Regional Committee (WERC), who were elected within the past year by the IBRO Governing Council:

CEERC

Robert Gábríel (HUNGARY)
Milos Judas (CROATIA)
Aurel Popa-Wagner (ROMANIA)

WERC

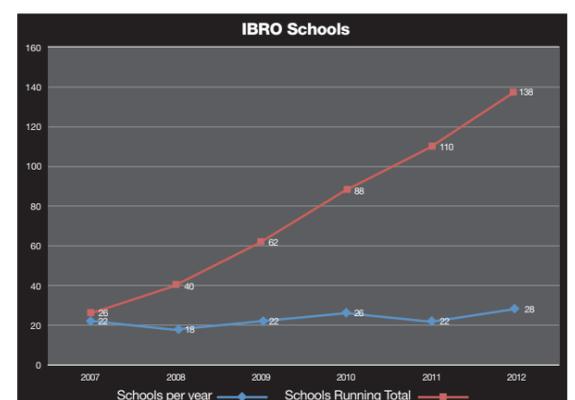
M. Angela Cenci (SWEDEN)
Laurent Fagni (FRANCE)
Juan Lerma (SPAIN)

The term of membership of IBRO's Regional Committees is four years, with half the membership replaced every two years. Members may be re-elected once.

IBRO's Schools Program advances learning as well as career connections

In 2012, IBRO volunteers organized 28 schools throughout the world, mainly in Africa, Asia and South America. (IBRO also co-sponsors the FENS-IBRO European Neuroscience Schools Programme; for more information on this program, please see page 7.) The main vehicle used by IBRO to interact with young people in all of its regions, IBRO Neuroscience Schools consist of an intensive, structured educational program lasting a week or more, bringing students into contact with distinguished scientists. Starting with three schools held in 1999, the program's inaugural year, expansion has been rapid and the program has attracted a number of funding partners.

Beyond the educational benefits they provide to students, IBRO Schools offer unique opportunities for the mixing of faculty and students from different parts of the world. Not only does this mixing introduce young people from developing countries to scientists from leading institutions, it also sensitizes teachers from the richer countries to the problems faced by their colleagues in more economically challenged parts of the world.





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New comprehensive neuroscience textbook: free to universities in low-income countries

A new textbook, *Neuroscience in the 21st Century: From Basic to Clinical*, will offer medical students and graduate researchers around the world a comprehensive introduction and overview of modern neuroscience while encouraging the initiation of neuroscience programs in developing countries. In early 2013, the text – electronically presented and augmented by illustrations and videos – will be freely available to universities in countries with low Gross National Income (GNI), using the HINARI list.

Donald Pfaff, head of Rockefeller University's Laboratory of Neurobiology and Behavior (USA), has initiated this important project and served as the editor-in-chief of this textbook, which was authored by a wealth of international experts in neuroscience and related disciplines. Published by Springer, *Neuroscience in the 21st Century* comprises 106 chapters, approximately 80% of which are devoted to basic neuroscience (from biophysics through cell biology to behavior and computational neuroscience) and about 20% to clinical neuroscience (with an emphasis on those conditions that have received the most research attention). Topics are intended to be appropriate for individual lectures or organized sets of lectures. The scientific information is supplemented by a chapter by Dr. Richard Brown (Dalhousie University, Canada) on the initiation of neuroscience programs in developing countries.

"From my point of view, the entire purpose of this large effort has been to provide a fine neuroscience textbook for students in economically underdeveloped countries," said Dr. Pfaff. "All authors and editors, including myself, worked without compensation." The author of several books on the brain and behavior, Dr. Pfaff received the 2005 Award for Excellence in Professional and Scholarly Publishing (medical science category) of the Association of American Publishers for his book, *Brain Arousal and Information Theory*.

"I am delighted that this achievement can contribute to the efforts of IBRO to promote neuroscience in the world, and particularly in less-favored countries," said IBRO Secretary-General Pierre Magistretti.



Donald Pfaff (right), editor-in-chief of *Neuroscience in the 21st Century*, shares news about the electronic version of the textbook with Musa Mabandla (left) and other members of the IBRO Africa Regional Committee.

The HINARI Access to Research in Health Program provides free or very low cost online access to major journals and textbooks in biomedical and related social sciences to local, not-for-profit institutions in developing countries. Springer's HINARI list activation should make the text available in the first part of 2013. Each school's library would be the most effective point of access. As soon as the textbook is available electronically through HINARI, a link will be posted on the IBRO Web site (www.ibro.info).

IBRO Alumni Give Back

In 2000, Desire Tshala-Katumbay attended the First IBRO Neuroscience School in South Africa, and two years later he was the recipient of an IBRO Research Fellowship. Today, he is a research scientist and an associate professor of Neurology at Oregon Health Sciences School of Medicine (USA), where he studies the epidemiology of Konzo, a paralytic disease associated with the toxicity of cassava, a staple food for more than 600 million around the globe.

"The burden of this disease on those subgroups of the population, along with their suffering, has always haunted me," said Prof. Tshala-Katumbay, who is originally from the Democratic Republic of the Congo (DRC). "I decided to go into a scientific discipline that would enhance my understanding of nervous system functionality in response to environmental stressors."

"After attending the first IBRO School and realizing the amount of time and effort from the faculty, and the need for neuroscience education on the African continent, I have decided to be part of the giving process," said Prof. Tshala-Katumbay. He has since been involved in the planning and teaching of 13 IBRO Neuroscience Schools organized by the IBRO Africa Regional Committee (ARC) and the United States & Canada Regional Committee (USCRC), in the countries of Mali, South Africa, the DRC, Kenya, Senegal, Rwanda, Egypt, Dominican Republic/Haiti, and Ghana.



Desire Tshala-Katumbay

"In the rapidly changing and competitive global environment, Africans need to realize that they do not need to re-invent the wheel," he added. "Instead, they need to leverage existing resources such as those made available by IBRO, to accelerate the pace of discoveries relevant to the health and well-being of Africans."

Prof. Tshala-Katumbay said that students will sometimes come up to him after his lectures and remark, "I see, now! I can also make it as a scientist," which he reports is highly motivating and reinforces his desire to keep giving back to the next generation of young African neuroscience researchers.

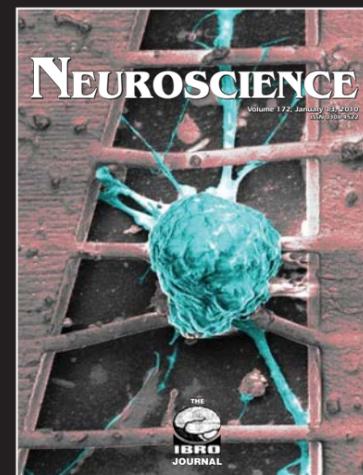


Neuroscience, the journal: A message from the Chief Editor

Stephen Lisberger reports: *Neuroscience* continues to be a leading journal for publication of important advances on the development, operation, and malfunction of the brain. The journal seeks high quality papers that make a substantial conceptual advance and are of interest to a wide group of readers. We continue to see a large number of quality submissions and a year-over-year increase in the quality of the papers we are publishing. The journal achieves short times from submission to first decision (a median time ~28 days), and rapid on-line and print publication of accepted papers. We strive to provide fair treatment by a dedicated board of Section Editors who give each paper a proper hearing on the basis of expert advice. We try to use the review process as an educational arena that guides authors to success when possible, rather than simply accepting or rejecting papers. One of our most important goals is to ensure proper scientific conduct in relation to the research we publish, and we are redoubling our efforts in this arena. *Neuroscience* publishes a series of "Special Issues" that are commissioned by hand-picked Guest Editors. In the next few months, we will publish Special Issues on topics as varied as "Spine Plasticity and Pathology in Brain Disorders," "Steroid Hormone Actions in the CNS: the Role of Brain-Derived Neurotrophic Factor (BDNF)," and "Stress and the Adolescent Brain." We continue to strive to represent the international neuroscience community broadly, and to involve a diverse group of neuroscientists from around the world as authors, reviewers, members of the Advisory Editorial Board, and Section Editors.

The effect of mechanical properties on neuronal morphology is subject of 2011 Neuroscience Cover Competition winner

The winning cover of IBRO's annual *Neuroscience* Cover Competition for 2011 is from an article by Y. Hanein, O. Tadmor, S. Anava and A. Ayali, titled "Neuronal soma migration is determined by neurite tension," which was published in *Neuroscience*, Volume 172, pp 572–579, on January 13, 2011. First author Yael Hanein is the director of the Tel-Aviv University Center for Nanoscience and Nanotechnology. Her research activity centers on the development of electronic nano devices that are designed to interface with brain cells and to record their activity. These devices have far reaching applications in the realm of understanding brain disorders, the effect of drugs on the brain and the possibility to build implantable electronic brain chips. According to Dr. Hanein, "Neuronal biophysics concerns with many different properties. One of the most conspicuous is their mechanics. Mechanical properties appear to profoundly affect neuronal morphology, wiring, function, and motility. Using large locust cultures and specially tailored micro-fabricated surfaces, our team is exploring how mechanics comes into play in neuronal development and activity."



Neuroscience winning cover

The winning cover featured a depiction of a neuronal cell from a locust cultured on an array suspended of micro beams. "The beams are flexible enough to bend under mechanical load by the cell," said Dr. Hanein. "After several days in culture samples were fixated and prepared for electron microscopy. Color was added manually." Drs. Hanein and Tadmor are on the faculty of Engineering at the Department of Physical Electronics, Tel Aviv University, Israel. Drs. Anava and Ayali are with the Department of Zoology at the same university.





NEWS FROM THE REGIONS 2012

Asia-Pacific Regional Committee (APRC)

Chair: Tadaharu Tsumoto, RIKEN Brain Science Institute, Japan

Within the past year, the IBRO APRC has organized advancing levels of neuroscience schools, as well as selected young researchers to sponsor for 4- to 6-month laboratory exchanges:

- **2nd Tehran IBRO School of Neuroscience:** Tarbiat Modares University, Tehran, Iran, May 12-23 (organized by S. Semnani). The School covered molecular, electrophysiological and behavioral techniques and approaches for senior PhD students and post-doctoral fellows from Bangladesh, Pakistan, India, Nepal, Armenia, Turkey and Iran, in a setting that encouraged personal interaction and exchanges.
- **IBRO Advanced School:** Chinese University of Hong Kong, June 6-15 (organized by W.H. Yung). The School focused on molecular, electrophysiological and imaging techniques in neuroscience research. Mini-projects were tackled by students in the laboratory.
- **IBRO Associate School in Osaka:** Osaka University, Japan, September 25-28 (organized by A. Wanaka). This School – under the theme of neurodegeneration and neuroplasticity – was held in conjunction with the 11th biennial meeting of the Asian Pacific Society for Neurochemistry (APSN) and the 55th annual meeting of the Japanese Society for Neurochemistry, under the joint sponsorship with the International Society for Neurochemistry and APSN.
- **3rd School of Neuroscience in Monash:** Monash University Campus Sun Way, Malaysia, November 19-30 (organized by I. Parhar). The region's pioneering work in live cell imaging, neurogenomics, confocal imaging, laser capture micro dissection and behavioral analysis formed part of this school. Cutting-edge sessions kept senior PhD students and junior post-doctoral fellows abreast with advances in key areas of neuroscience research.
- **IBRO Associate School in Qingdao:** Qingdao University, China, November 29 November to December 3 (organized by J. Xie). This School introduced the most recent concepts and advances of neuroscience for senior PhD students and junior post-doctoral fellows in the Asia-Pacific region, focusing on molecular, electrophysiological and behavioral studies in neuroscience research.
- **Inter-regional IBRO School of Computational Neuroscience:** Hyderabad, India, December 5-21 (organized by V. Srivastava and J. Joseph). This School aimed to escalate the efforts to bridge the wide gap between experimental



Funding from IBRO-APRC and local sponsors enabled 25 students to attend the 12-day IBRO School on Molecular, Electrophysiological & Behavioral Approaches, in Tehran, Iran.

data on neuroscience and the conceptual understanding of the brain phenomena. IBRO's Asia-Pacific, Africa and Western Europe regional committees brought together professionals and students from various backgrounds – mathematics, physics, computer science, engineering, experimental and theoretical neuroscience, and psychology – to share knowledge, expertise and thoughts, and in the process get students trained for a career in computational and theoretical neuroscience.

- **Exchange Fellowships:** Four young researchers were selected for the IBRO-APRC Exchange Fellowship Program (two from India to Australia, two from Iran to Japan), which sponsors young APRC neuroscientists (under 40 years old) to spend 4-6 months in another host laboratory within the region.

Central & Eastern Europe Regional Committee (CEERC)

Chair: Ryszard Przewlocki, Institute of Pharmacology PAS, Poland

Throughout the past year, CEERC has continued to encourage and support educational programs within the region with particular emphasis on empowering networking between young neuroscientists, as well as enhancing international participation at meetings of national neuroscience societies:

- **InEurope** (the IntraEuropean Mobility Project), a laboratory short-stay visit program originated by CEERC and WERC, funded four more stipends for young investigators from Central and Eastern Europe to carry out collaborative studies, learn new techniques, and write joint papers and grant applications.
- An **IBRO International Workshop**, held on January 19 in Budapest, Hungary, was the opening event of a series of conferences throughout 2012 celebrating the 100th birthday of neurobiologist János Szentágothai, and was organized in association with the Hungarian Academy of Sciences.
- **The second NEURONUS, an IBRO Young Neuroscience Forum**, took place April 20-22 in Krakow, Poland. Together with IRUN (International Research Universities Network) and supported by grants from both the IBRO CEERC and WERC, this student-organized meeting consisted of an intensive 3-day program of plenary lectures and presentation sessions, including more than 50 speakers in total. The meeting was attended by approximately 450 neuroscientists affiliated with 15 countries from throughout Western, Central and Eastern Europe.
- **Travel awards to attend 2012 FENS Forum in Barcelona, Spain**, were provided to 24 post-docs and PhD students representing Central and Eastern European countries.
- **Neurogenetics: Unravelling behaviour and brain mechanisms using modern technologies** was a conference for young researchers held in Zvenigorod, Russia, from August 20 to 25, and received funding from CEERC.



Participants listen intently to Kenneth Hugdahl's Plenary Lecture, "Auditory Laterality: From basic science to clinical applications," at the NEURONUS 2012 IBRO & IRUN Neuroscience Forum, an intensive 3-day meeting in Krakow, Poland. (Photos by Adam Walanus)

- **The 10th East European Conference of the International Society for Invertebrate Neurobiology**, "Simpler Nervous Systems," was held in Moscow, Russia, from September 6 to 10. CEERC provided funding for nine travel stipends.
- **The 3rd Conference of the National Neuroscience Society of Romania**, held in Bucharest, Romania on October 18-19, received funding from CEERC to secure international participation.

Africa Regional Committee (ARC)

Chair: Abdul Mohammed, Karolinska Institutet, Sweden

Over the past year, the IBRO ARC has organized or co-sponsored schools, workshops and courses to provide neuroscience training and exposure to neuroscience research topics that are especially relevant to the continent of Africa:

- **Infections of the CNS:** Gaborone, Botswana, January 26-28 (organized by S. Vento and K. Kristensson). This workshop provided an overview of current knowledge on neurobiology as well as the clinics, diagnostics and treatment of infections of the nervous system that are prevalent in Southern African countries.
- **The first Neurology Awareness and Training Week:** Kinshasa, Democratic Republic of Congo, May 25-30. Under the theme of "Tropical Neuroendemics,"



Two IBRO Alumni and organizers: Sadiq Yusuf (KIU, Bushenyi, Uganda) and Jimena Berni (Dept. of Zoology, Cambridge, UK) – previously funded by IBRO to attend a course at Woods Hole, USA – collaborated to initiate the first-ever IBRO School on Insect Neuroscience, held in Uganda.

this event was organized through the Congolese Ministry of Higher Education and Scientific Research, with the participation of IBRO and other groups. The workshop was followed by a meeting on the same topic, drawing nearly 230 people, including medical students, residents, lab technicians, physicians, and public health personnel.

- **APRONES Symposium on Brain Rehabilitation:** Lubumbashi, DRC, May 28-30 (organized by M. Luabeya): This symposium focused on diseases frequently encountered in Africa, such as epilepsy and spastic tropical paraparesia.
- **Inter-regional IBRO School, "From nutrition to zoonosis,"** Maputo, Mozambique, June 10-15 (organized by J. Palha, L. Gouveia and E. Noormohamed). The school brought together professionals and students from various backgrounds (psychiatrists, psychologists, neurologists, general physicians, nutritionists, pediatricians, occupational therapists and veterinarians) to a discussion of neuroscience related diseases of concern not only in Africa but throughout the world.

- **The 2nd East Africa Neuroscience Congress:** Nairobi, Kenya, June 18-19 (organized by C. Newton, A. Mohammed and N. Patel). The many participants were from Kenya, Uganda, Ethiopia and Tanzania and the topics included epilepsy, malnutrition and cognition, behavioral disorders in children, cerebral malaria and cognitive intervention.
- **The 4th Regional Teaching Course:** Aga Khan University Hospital in Nairobi, Kenya, June 20 (organized by R. Kalaria and A.G. Diop). Thanks to the contribution of EFNS, IBRO and WFN, it was possible this year to invite and sponsor a number of trainees, specifically recommended by the heads of their local neurological departments, from the neighboring countries to Kenya to attend the course.
- **The 1st IBRO School on Insect Neuroscience:** Kampala, Uganda, August 20 to September 7 (organized by L. Godino, S. Yusuf, J. Berni and T. Baden). The School was co-initiated by IBRO Alumni (S. Yusuf, ARC, and J. Berni, LARC) at Kampala International University to introduce the use of insects as powerful, yet inexpensive, model systems in neuroscientific research. With their comparatively simple nervous systems, tractable genetic access and low maintenance costs, *Drosophila* and other insects have rapidly consolidated their status as key model systems in scientific research.
- **Special Session on Neuroscience at the 6th International Conference of the African Association of Physiological Sciences (AAPS):** Ismailia, Egypt, September 1-6 (organized by Y. El-Wazir).
- **The 5th Teaching Tools Workshop:** Durban, South Africa, September 5 (main organizer: S. Juliano, USA). This activity, co-sponsored with SfN, was well attended and successfully run, as were the four Teaching Workshops previously held in Senegal, Egypt, Kenya, and Ghana. Several ARC and co-opted members participated as instructors.
- **Regional Workshop on Peripheral Neuropathy and Myopathies (basic and clinical aspects):** Addis Ababa, Ethiopia, October 15-20 (organized by G. Zenebe, B. Arasho and M. Zbenegus). This workshop was aimed at developing training in neurology and neuroscience research in Ethiopia.
- **Inter-Regional IBRO School on Environment, Epigenetics and Behavior:** Mombasa, Kenya, December 8-15 (organized by S. Hashim, A. Mohammed, N. Patel and K. Kristensson). This school addressed a theme that is highly relevant for African, Asian and European countries: namely, how environmental factors (e.g. toxins and infectious agents as well as nutritional conditions) can affect the nervous system and lead to cause behavior disturbances, particularly from early-life exposure.



NEWS FROM THE REGIONS 2012

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Latin America Regional Committee (LARC)

Chair: Osvaldo Uchitel, University of Buenos Aires, Argentina

Most of the academic activities promoted and organized by LARC were co-sponsored or partially financed by local institutions (universities, research institutes, national research councils, private foundations, etc.) and international scientific organizations. In addition, a substantial part of IBRO LARC's resources in 2012 went toward supporting the 1st Meeting of the Federation of Neuroscience Societies in Latin America, the Caribbean and the Iberian Peninsula (FALAN). The main LARC-funded activities that took place during the past year include:



Osvaldo Uchitel looks over the work of participants at the "Neuroscience: Synapses, Circuits and Behavior" course in Buenos Aires, Argentina, which IBRO LARC co-sponsored.

- **IV Latin American School on Computational Neuroscience:** University of São Paulo, Ribeirão Preto, Brazil, January 15 to February 10 (organized by A. Roque). This 4-week school, taught by an international team of world-renowned researchers in the field of computational neuroscience, covered biophysically detailed single neuron models, simplified neuron models, neural network models, synaptic plasticity and memory models, system-level brain models, information theory and spike train analysis, and computational cognitive neuroscience.
- **2012 Miledi Neuroscience Training Program** of the Society for Neuroscience, with IBRO sponsorship: Buenos Aires, Argentina, March 5-30 (organized by A. Schinder and O. Uchitel). The course topic, "Neuroscience: Synapses, Circuits and Behavior," provided students with a comprehensive view of relevant concepts and current techniques in neuroscience to graduate students and post-docs in the Latin America and Caribbean region.
- **First IBRO Neuroscience School in Bolivia** (LARC/NIH supported): Universidad De Nuestra Señora De La Paz, La Paz, Bolivia, November 26 to December 7 (organized by V.H.R. Campos, F. F. de Miguel and O. Uchitel). Based on the experience of the 2009 IBRO Visiting Lecture Team Programme course in La Paz, the Bolivian Society for Neurosciences organized this course, focusing on undergraduate students from Bolivia, Ecuador, Peru and Paraguay – South-American countries bearing talent and interest, but currently lacking opportunities for neuroscience development.
- Two specialized training courses – the **5th Latin American Summer School on Epilepsy** and the **2nd Latin American Summer School in Computational Neuroscience 2012** – were chosen through a competitive decision process to receive financial support from IBRO LARC.
- **Travel and Short Stay Grants** (up to 1200 euros) were given to young scientists to facilitate travel to laboratories in the region, including Colombia to Brazil, Peru to Brazil, Argentina to Brazil, and Argentina to Chile.
- **LARC Intra/Inter-regional Exchange Awards** provided travel funds to young researchers in the region to travel from Cuba to Brazil, Cuba to Spain, Argentina to Italy, and Argentina to the U.S.
- **Prolab:** This program was launched in 2010 to promote cooperative research by laboratories from two different Latin American and Caribbean countries during two years. Two grants were awarded in 2011-12: T. Fernandez (Mexico) - V. Rodriguez (Cuba); R. Vargas (Colombia) - D. Golombek (Argentina).
- **The 1st Meeting of the Federation of Neuroscience Societies in Latin America**, the Caribbean and the Iberian Peninsula (FALAN) was held November 4-9 in Cancún, Mexico. The IBRO LARC provided 60 travel grants for young investigators throughout Latin America and the Caribbean to attend the meeting, and also sponsored three pre-Congress courses and 20 symposia.

United States & Canada Regional Committee (USCRC)

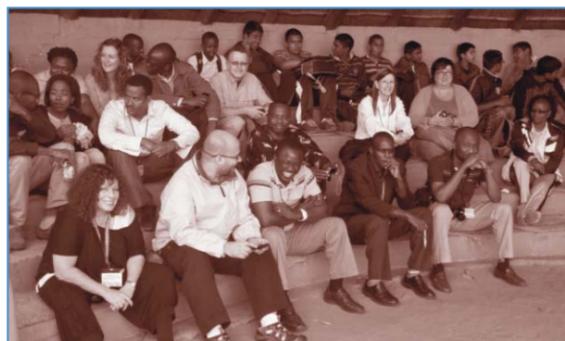
Chair: Gregory Quirk, Ponce School of Medicine, Puerto Rico

IBRO Fellows Program: In 2012, the USCRC worked with Marine Biological Laboratory (MBL) and Cold Spring Harbor Laboratory (CSHL) course instructors to identify and encourage highly qualified and motivated research trainees from developing countries to apply for admission to summer neuroscience courses at the MBL and CSHL. Eight MBL fellowships were awarded, and additional CSHL fellowships are expected to be awarded later in the year. Since 2002, nearly 75 students from more than 15 countries have been awarded IBRO fellowships facilitating their participation in these highly competitive and respected MBL and CSHL courses.

The 6th Canadian School of Neuroscience, "Neuroplasticity in Development, Learning and Disease," took place May 13-19 in Vancouver (organized by E. Cooper). The School's organizing committee, in consultation with members of the IBRO Regional Committees for Africa (ARC) and Latin America (LARC), selected 12 students from over 125 applicants. The students included graduate students, postdoctoral trainees and junior staff and originated from Cameroon, Morocco, Nigeria, South Africa, Kenya, Argentina, Cuba, Brazil, and Mexico. An important component of the Canadian IBRO schools is attendance of the associated CAN Annual Neuroscience meeting, where the IBRO students had meetings with the keynote speakers following their lectures.

The Fifth Teaching Tools School and Workshop was held in association with the University of KwaZulu Natal in Durban, South Africa, from September 8 to 23 (organized by S. Juliano). This program focuses training efforts in Africa for the next several years and will establish a network of instructors that will sustain continued progress in neuroscience education. Pedagogical training offered and modeled at the workshops prepare trainees to develop new lectures and course materials independently.

The First IBRO Neuroscience School in Bolivia (co-funded with IBRO-LARC) took place at the Universidad de Nuestra Señora de La Paz, Bolivia, from November 26 to December 7. A major goal of this course was to continue to produce a critical mass of regional students and professors who will continue to participate in the local organization and promotion of neuroscience.



The 5th Teaching Tools Workshop, held in Durban South Africa, welcomed a record number of applicants (25) from a record number of countries (14). Here, participants and faculty wait for the evening's entertainment, a performance by Zulu dancers.

Western Europe Regional Committee (WERC)

Chair: Juan Lerma, Instituto de Neurociencias de Alicante, Alicante, Spain

Joint initiative with the French Society of Neuroscience: WERC funded travel grants from South America and from North Africa or Middle East countries to attend the Alfred Fessard symposium, held in Paris on May 23, 2012, and to help the recipients to contact French neuroscientists and to visit French laboratories in order to find a post-doctoral position in France.

NEURONUS Meeting in Krakow: Together with CEERC, WERC helped support the NEURONUS Meeting held in Krakow, Poland from April 20 to 22, 2012, which was attended by approximately 450 neuroscientists from 15 countries in Western, Central and Eastern Europe.

WERC-CEERC Intra-European mobility – InEurope Initiative: This joint CEERC-WERC programme provides short, goal-directed grants to allow exchanges within European laboratories. The number of applications this year was double the number of applications received in 2011, and WERC has awarded 8 grants in the current year.

Travel grants for attending the FENS meeting in Barcelona: Upon the occasion of the FENS forum in Barcelona in 2012, IBRO WERC offered a total of 30 stipends of 750 euros each, for attending the FENS meeting.

Young Investigator Visiting Programme - FENS Forum 2012: The objective of this initiative was to facilitate short research stays (2-4 weeks) in one of the leading Spanish Neuroscience Institutions before or after attending the FENS Forum. Expressions of interest from a large number of Spanish laboratories were received, covering all the Neuroscience fields, from genes to behavioural and model approaches. Forty-three young investigators, representing 28 different countries, were able to participate.

Sponsoring workshops or other meetings: WERC launched a call, for the first time, for applications to support students from less-favored regions to gain access to excellent meetings in Europe and have the opportunity to share time with European faculty and European students who may be at the forefront of neurobiological research in a few years.

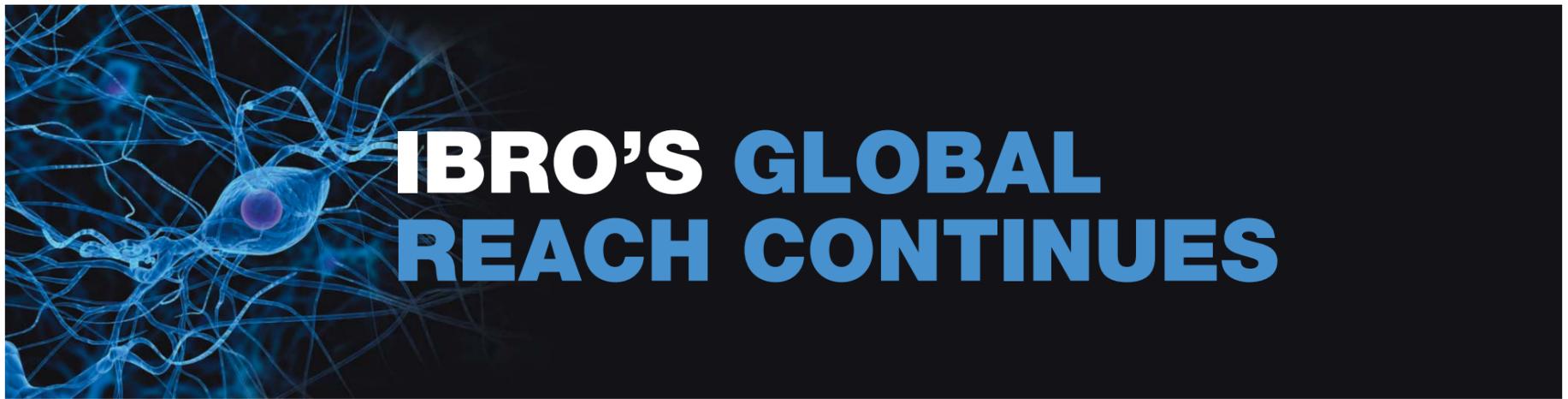


Two InEurope Short-Stay Grantees from Western Europe: Elliot Brown (left) traveled to Ghent University (Belgium) to gain more expertise in EEG research on mirror neuron activity. Maria Eugenia Cornide-Petronio (right) went to the Centre for Neuroregeneration at The University of Edinburgh (UK) to master maintenance, management and handling techniques on zebrafish, for future axonal regeneration research.

FENS-IBRO collaboration provides high-quality training across Europe

The FENS-IBRO European Neuroscience Schools Programme, aimed to train students and young investigators throughout Europe, is a collaboration with the Federation of European Neuroscience Societies (FENS). Through this partnership, nine schools were supported in 2012:

- **"International Astrocyte School,"** March 25 – 30 in Bertinoro, Italy, was organized by A. Araque.
- **"Drugs and the Brain: an update in psycho-pharmacology from experimental to clinical,"** held April 16 – 20 in Braga, Portugal, was organized by H. Steinbusch.
- **"Chemical Senses: Neurobiology and Behavior"** (co-sponsored by the Society for Neuroscience [SfN]), held June 3 – 8 in Bertinoro, Italy, was organized by A. Menini and S. Simon.
- **"Evolution of concepts on pain,"** June 3 – 10 in Siena, Italy, was organized by M. Zimmermann.
- **"Causal Neuroscience II - Interacting with neural circuits"** (an SfN Satellite Symposium) was held on July 18 and was organized by M. Häusser and G. Buzsaki.
- **"Cellular Biology of Addiction,"** held July 19 – 25 in Barcelona, Spain, was organized by R. Maldonado.
- **"Advanced Course in Computational Neuroscience"** (a Training Centre) was held August 6 – 31 in Bedlewo, Poland, and was organized by D. Wojcik and P. Latham.
- **"Imaging Neural Function"** (a Training Centre) was held August 26 – September 14 in Lausanne/Geneva, Switzerland, and was organized by S. Bolea.
- **"Brain Dynamics and Dynamics of Brain Disease"** (Hertie Winter School), held December 9 – 16 in Obergurgl, Austria, was organized by A. Kumar.



IBRO'S GLOBAL REACH CONTINUES

IBRO Visiting Lecture Team lights the way for future neuroscientists

In 2012, the IBRO Visiting Lecture Team Program (VLTP) will have traveled to Sri Lanka, Poland and Brazil to expose potential research scientists to neuroscience opportunities, both locally and abroad, while covering a variety of topics of current interest in basic neuroscience.

April 18-25, 2012, University of Sri Jayewardenepura, Nugegoda, Sri Lanka: The course's 52 participants (48 from Sri Lanka; 4 from India) included medical students and advanced undergraduates. The local organizer was Ranil De Silva, and the VLTP lecturers were U.J. (Jack) McMahan (Texas A&M University, USA), Mathew K. Mathew (National Center for Biological Sciences, Bangalore, India), John Nicholls (Department of Neurobiology, International School for Advanced Studies, SISSA, Trieste, Italy), Noreen Reist (Colorado State University, USA) and Shlomo Rotshenker (Hebrew University Medical School, Jerusalem, Israel).

June 27-July 5, 2012, Institute of Zoology, Jagiellonian University, Krakow, Poland: Attending the course were sixty-nine students from six academic institutions throughout Poland and from various institutions in Hungary, Germany and England. The local organizer was Marian H. Lewandowski, and the VLTP lecturers were Alasdair Gibb (University College London,



The IBRO VLTP course in Nugegoda, Sri Lanka, drew 52 students from fields such as allopathic and ayurvedic traditional medicine, biological sciences, veterinary medicine and engineering, who were eager to learn as much as possible about the interdisciplinary approach to neuroscience promoted by the lecturers

UK), Stephan Kroger (University of Munich, Germany), McMahan, Shlomo Rotshenker (University Medical School, Israel) and Wesley Thompson (University of Texas, USA).

November 14-22, 2012, Universidade Federal da Grande Dourados, Dourados, Brazil: The local organizer was Irineu Renzi, and the VLTP lecturers were John Nicholls, Elaine Del Bel (University of São Paulo, Brazil), Francisco F. De Miguel (National Autonomous University of Mexico), Walter Stuehmer (Max Planck Institute for Experimental Medicine, Germany) and Jack McMahan.

IBRO's VLTP helps to lay groundwork for future neuroscience degree program in Sri Lanka

Ranil De Silva, who had organized a highly successful VLTP course in Sri Lanka in 1999, had requested the IBRO VLTP to return at this time to bolster his efforts in developing a neuroscience degree program for graduate students, which would be the first in Sri Lanka. During the VLTP course in Nugegoda, the IBRO Visiting Lecture Team spent part of an afternoon with him and Vice Chancellor of the University of Sri Jayewardenepura, N. L. A. Karunaratne, laying out how to go about developing the program and obtaining funding support for it from international agencies. According to IBRO VLTP Chair Jack McMahan, the course's students were bright and eager to learn as much as possible about the interdisciplinary approach to neuroscience promoted by the VLTP. Although the VLTP has encountered students of traditional medicine in its various courses throughout Asia and Africa, the number in this course was unusually high.

"The VLTP much enjoyed viewing the principles of traditional medicine through the eyes of these students," said Dr. McMahan, "and we were encouraged by their eagerness to undertake quantitative documentation of the effectiveness of their treatments after learning about the usefulness of this approach in understanding basic neural function."

IBRO creates IBRO Sub-Region, formalizing its support of Middle East and Northern Africa Neuroscience (Continued from page 1)

The IBRO-MENA Committee will identify active neuroscience programs, foundations and professional societies in the region and seek to engage them in IBRO-MENA regional activities through organization of joint activities (e.g., workshops, conferences and public awareness campaigns). In addition, the IBRO-MENA Committee will work to establish a database of basic and clinical neuroscience researchers throughout the MENA Sub-Region.

Already, an IBRO-MENA neuroscience school and conference are in the works for 2013. The neuroscience school, "Pain: From Mechanisms to Therapies," will be followed by the 2nd IBRO-MENA Sub-Region Neuroscience Conference, both of which will take place at the American University of Beirut, Lebanon, during the last two weeks of September 2013.

"Now that the IBRO-MENA Sub-Region is a reality, as with any other volunteer-based organization it will depend on the goodwill and sustained support of neuroscientists in the region and abroad," said founding member Omar El-Agnaf, professor at the UAE Faculty of Medicine and Health Sciences University, and an expatriate from Libya. To help the IBRO-MENA Sub-Region succeed and achieve its mission, the UAE University will serve as its host institution and will provide administrative support in the form of secretarial services for the first two years.

"Once upon a time, the scientists in the MENA region set the standard for the world, and there is no organic reason why their scientific product in the 21st century should not match the aspiration and capabilities of the Arab people," said MENA Sub-Region founding member Hilal Lashuel, associate professor at the Swiss Federal Institute of Technology-Lausanne (EPFL), and an expatriate from Yemen.



IBRO Research Fellow Joman Natsheh (Palestinian Territories) and IBRO President Carlos Belmonte, at the gathering commemorating the new IBRO MENA Sub-Region.

IBRO launches Global Advocacy Initiative in partnership with other neuroscience organizations (Continued from page 1)

"With effective advocacy, greater political will and enhanced global cooperation, neuroscience will make faster progress for the benefit of all humans," said Pierre Magistretti, the Chair of the IBRO Global Advocacy Initiative Committee. "Neuroscience research is the key to widening what humankind has already achieved with our brains, to secure a sustainable future for forthcoming generations."

IBRO is now working closely with FENS and SfN, in addition to the Dana Foundation, the Japan Neuroscience Society, the Australian Neuroscience Society, the International Society of Neurochemistry and, possibly, others to create a program in support of its Global Advocacy mission that will launch in 2014. So far, several partners have committed funds along with IBRO to launch a perpetual funding program. The agenda for the IBRO Global Advocacy Initiative will differ from other existing partnerships in that the foci will be regionally and even culturally targeted, prioritizing those regions and cultures with the greatest need for education and advocacy.

"Care will be taken to adopt a global voice to express all views," said Prof. Magistretti. "IBRO's mandate is to articulate a vision of what advocacy means across different countries and cultures, and our organization should suggest workable models that can be adapted to various regional situations."

IBRO pays tribute to Dargut Kemali and pledges to continue his Foundation's work (Continued from page 1)

The Foundation was established in 1996 by Dargut Kemali, a renowned psychiatrist at the University of Naples, and by the will of his late wife Milena Agostini Kemali (1926-1993). Convinced that brain research is a high priority in the science of our times, Dargut Kemali had long been interested in the biological foundations of mental diseases and was one of the founders of "Biological Psychiatry" in Italy. Milena Kemali was a skilful neuroscientist who focused on the frog brain, identifying, among other findings, an asymmetry of the habenulae that has inspired debates on the evolution of lateralization in the brain.

"Both Dargut and Milena strongly believed in the impact of the neurosciences in the modern world," said former IBRO Secretary-General Marina Bentivoglio. "Born in a Turkish family in Libya, Dargut studied and worked at the University of Naples. A strong believer in building bridges across cultures, scientific approaches – especially across the Mediterranean Basin – for both progress and peace, Dargut's legacy fully matches IBRO's mission."

"Professor Kemali was a real friend to neuroscience, and we will miss him deeply," said Prof. Belmonte. "He was very passionate about bringing the best and brightest young neuroscientists together, no matter from where they came, to form friendships that would allow them to interact at a global level and work collaboratively in the future." The Kemali-IBRO Mediterranean School of Neuroscience Program was launched in 2009 to provide top-level education in neuroscience and reinforce the network of collaboration and friendship between young, promising neuroscientists from all sides of the Mediterranean basin. Starting in 2013, the school will be known as a "college," in accordance with its focus on excellence and the desire to draw from among the most promising young researchers from the various regions involved. The Third Kemali-IBRO College will focus on RNA and the etiology of brain diseases, and will be held in San Quirico, Italy, June 3-9, 2013.

The Dargut and Milena Kemali International Prize for Research in the Field of Basic and Clinical Neurosciences will be assigned every two years to an outstanding researcher, under the age of 45, who has made important contributions in the field of Basic and Clinical Neurosciences. The Kemali Prize has been awarded to Tamas F. Freund (1998), Robert Malenka (2000), Daniele Piomelli (2002), Cornelia I. Bargmann (2004), Patrik Ernfors (2006), Massimo Scanziani (2008) and Jonas Frisén (2010). This year's Kemali-IBRO Prize went to Wellcome Trust Centre for Neuroimaging's Eleanor Maguire for innovative contributions to understanding human memory. On July 17, 2012, at the FENS Forum in Barcelona, Spain, Prof. Maguire provided the Kemali Prize Lecture, titled "Space, memory and the hippocampus." She was the lead author of the much publicized "Navigation-related structural change in the hippocampi of taxi drivers," published in the *Proceedings of the National Academies of Science* (2000; 97:4398-403) as well as follow-up studies showing how structural changes can occur in healthy human brains.



2012 Kemali-IBRO Prize Winner Eleanor Maguire.