

Report

2nd IBRO-ARC workshop on

Oxidative Stress Implication in Neurological Disorders

7- 11 April 2019

Tolip Hotel, Faculty of Science, Alexandria-Egypt

Aim of the workshop

Since oxidative stress is a hallmark and worsening factor of many disorders, it is important to present and to discuss the recent discoveries that correlate oxidative stress to neurological disorders. The workshop focused on specific pathologies of broad interests worldwide (e.g., neurodegeneration and different neuropathies). Presentations were delivered by specialists from academia and clinicians on different aspects of redox imbalance in relation to various neuropathological disorders. Three days were dedicated completely to lectures and roundtable discussions and two days to practical training.

Major themes of the workshop sessions:

- 1- Oxidative stress and neuroinflammation; implications in nervous system pathology.
- 2- Pharmacological agents as scavenging systems for free radicals and as regulators for redox imbalance nervous system.
- 3- Hands on: development of oxidative stress research models and assessment techniques in neuroscience investigations.
- 4- Neurodegenerative diseases: recent highlights.

Another important aim was to revive the IBRO funded activities in the region for better development of neuroscience organized events and knowledge serving IBRO mission.

Structure of the workshop activities

✓ Application and acceptance process:

A call was launched to receive applications from early career researchers in all regions. We received **107** eligible applications with a significantly increased number compared to last year. The applications were evaluated by 9 reviewers to select the top candidates. The reviewer committee composed of **Prof. Marc Landry, France**; **Prof. Liana Fattore, Italy**; **Prof. Giuseppe Di Giovanni, Malta**; **Prof. Ahmad Basiouny, Egypt**; **Prof. Amina Essawy, Egypt**; **Prof. Hanan Ghoslan, Egypt**; **Prof. Mayssaa Wahby, Egypt**; **Assist. Prof. Amira Zaky, Egypt** and **Dr. Mohamed Abdelkader, Egypt**.

Due to high number of the received applications/good candidates, we selected the top **10** students only. We started with the logistical work with the accepted applicants including sending an official invitation letters, booking flight tickets and arranging for accommodation.

Out of the accepted 10 applicants, 2 could not join because of an issue with visa processing. On the other hand, we invited distinguished international and national speakers to join the workshop supported by IBRO and MNS funds.

✓ Number of participants

Category	Number
Total number of students and young Researchers (BSc, MSc, PhD and Post-doc)	37
Number of international students	8
Speakers/Chairpersons/Attendee/faculty members	29

✓ Scientific program

The first three days held in Tolip hotel, Alexandria, were dedicated for delivering presentations by distinguished professors in the field. In parallel, IBRO-MNS funded young investigators gave 15 min presentation followed by evaluation by 3 professors.

During gala dinner at the university club restaurant that is located on the Mediterranean Sea. Dean of Faculty of Science with the chairman of the workshop, honored the guest speakers and the top researchers with an honorary medal award (**1st Mahmoud Ebada, Egypt**; **2nd Issac Tabiri, Ghana** and **3rd Nada Fath, Morocco**).

I have also to mention that like last year event we had active contribution from the local faculty members who interacted strongly with the attendee during the workshop.

✓ **Ethics session and ELSEVIER workshop:**

As advised by IBRO council, we organized a two hours session on ethics conduct in research. The session started by an interactive presentation by the **Assist. Prof. Rania El Backly**, Department of Conservative Dentistry, Faculty, Dentistry, Alexandria University for 1 hr. at the end of her presentation, Dr. Rania asked the participants to divide into small working groups to start working together on solving some cases. Afterwards, an organized panel of **Prof. Mona Marie**, **Prof. Liana Fattore**, **Prof. Giuseppe Di Giovanni** and **Prof. Marc Landry** and moderated by **Prof. Hanan Ghozlan** who opened discussion with the participants/young investigators to highlight the main ethical issues and misconduct that face the researchers from planning to publishing the work. The activities of the ethics session was very interesting and stimulated the participants to ask and interact positively. At the end of the workshop we gave all participants an A3 flyer contains the major outlines of ethical conduct in research to take back to the home laboratory.

Moreover an important Elsevier publishing workshop was organized by Prof. Giuseppe Di Giovanni, who is Editor-in-Chief Journal of Neuroscience Methods, ELSEVIER.

Workshop content outline:

- What to do before publishing
- Choosing the right journal
- Tips on writing a manuscript
- The editing process
- The reviewing process
- Ethics: plagiarism, data fabrication, authorship
- Open Access and funding policies
- Getting your paper noticed

Ethics in research and Elsevier workshops contents on the third day synchronized to deliver strong message in an interactive mean.

✓ **Practical training:**

The practical sessions were condensed and included theoretical presentations before the practical training as in the following:

- Training on major molecular biology techniques delivered by our research team.
 - RNA/microRNA extraction methods
 - CDNA synthesis
 - Primer design tools
 - Gel electrophoresis
 - Real time PCR
 - Protein extractions
 - Analysis by western blotting

School challenges

- Reducing the IBRO fund for this school put strong pressure on the organization committee to achieve the same quality of work like last year with markedly less amount of money.
- Low number of accepted international applicants when compared to the number of received applications.
- Delayed/long Administrative processing of the visa that prevents some of the applicants from joining in addition to loss part of the fund in lost flight tickets.

Key benefits of your School experience

This is the second organized workshop in Alexandria. The scientific theme of the workshop was of strong interest to the participants especially those related to environmental and microbial etiological links. The scientific program was rich and focused. The lecturers agreed on the fact that the scientific knowledge of the selected participants is of high quality that promoted strong interactive discussion. Network was established between the international guests and the local participants by exchanging contact information for possible future collaboration. Moreover some international participants showed interest in visiting our lab in Alexandria in future supported by an exchange program.

This IBRO funded activity is of high importance in consolidation of the networking at national and regional level. Personally I have gained more experience to handle such organization. On the other hand we got strong attention from the regional applicants as indicated by the number of received applications. We built network in 2018 that was expanded this year too. Like last year, we had full support of Alexandria University in facilitating all administrative logistics for hosting foreign visitors and providing the venues/facilities for the practical training of the workshop. The support of the institution is important especially for implementing long-term goal like establishing local training center in Alexandria University supported by IBRO.

The most important benefit from these cumulative annual activities is to help achieving some of the IBRO missions in serving brain health and development by building human capacities in Africa region.