



SESAME a Bright Light of hope to the Middle East

The 5th SESAME Users' meeting was held in Alexandria, Egypt November 29 - December 2, 2006. Alexandria, overlooking the Mediterranean Sea, has been, and continues to be, one of the world's most significant melting pots for different cultures, religions and races.

SESAME stands for **S**ynchrotron light for **E**xperimental **S**cience and its **A**pplications in the **M**iddle **E**ast. It is a synchrotron facility which is being built in Jordan under the auspices of UNESCO. Currently, the full members of the project are Bahrain, Cyprus, Egypt, Israel, Jordan, Pakistan, the Palestinian Authority and Turkey. Moreover, France, Germany, Greece, Iran, Italy, Kuwait, the Russian Federation, Sweden, the United Arab Emirates, UK and US will act as observers.

Starting in the year 2000, scientists from the region began meeting in a series of scientific workshops (see reports at www.sesame.org.jo). Annual SESAME Users' meetings began in Jordan in 2002 followed by Iran in 2003, Turkey in 2004, and back to Jordan in 2005.

The success of the four previous Users' meetings was clearly reflected in the number of applications for the 5th user meeting in Egypt. More than 200 applications were received from 18 countries. In attendance at the meeting, were about 55 local participants from different universities and research organizations in Egypt as well as scientists from Algeria (4), Jordan (15), Israel (3), Pakistan (7), Turkey (8), Palestine (3), Italy (3), Canada (1), the UK (3), the UAE (2), Bahrain (2), the USA (5), Yemen (2), Syria (2), France (5) and Germany (4). Official invitations were also sent to several scientists from Iran. Unfortunately, due to longer than expected procedures, they could not get their visas on time.

Representatives from the International Atomic Energy Agency (IAEA) and the Canon Foundation were present. The participation of William Duax, the immediate past president of IUCr was also notable and highlights the attention that the SESAME project has been receiving.

The meeting was sponsored and supported by UNESCO, the Academy of Scientific Research and Technology of Egypt, the Faculty of Science of Cairo University, Bibliotheca Alexandria, the US Department of Energy (DOE), the Office of External Activity (ICTP, Trieste, Italy), the Canon Foundation (London, UK) and the IUCr.



SESAME building, Jordan. Photos courtesy of R. Sarraf, Al-Balqa-Applied U.

The meeting was preceded by a joint session of the SESAME Beam Lines and Scientific Advisory Committees and followed by a workshop on Synchrotron Applications in Macromolecular Crystallography.

The opening session on November 29 was chaired by Schopper, President of the SESAME council. Tarek Hussein, President of the Egyptian SESAME Committee gave a welcoming note followed by Herwig Schopper who spoke about the status and future prospects for SESAME and finally Hany Helal, Minister of Higher Education and Scientific Research (Egypt) concluded with a promise of

Egypt's continuing commitment to the success of SESAME. This session was followed by presentations by Aslam Baig (Scientific director of SESAME) who spoke about the scientific directions of SESAME, Maged Al-Sherbiny (Cairo University and a member of the SESAME Scientific Committee) who outlined Egypt's vision for SESAME, Zehra Sayers (Chairman of the SESAME Scientific Committee) who discussed the role of SESAME members in the construction of Phase I beam lines and Herman Winick (Stanford Synchrotron Radiation Lab (SSRL), one of the founders of SESAME) who talked about the impact of synchrotron related research on developing countries.



Minster Hany Helal (middle) is greeting Herwig Schopper (left) and Tarek Hussein (right).



Bibliotheca Alexandria, site of the 5th SESAME Users Meeting. Photos courtesy of Dale Tronrud





Minster Helal talking to Samar Hasanain during the coffee break

The users meeting lasted for three days and covered many different scientific disciplines. The scientific themes for the first day were material science, nanotechnology, structural biology and drug design. Zahid Hussain (Pakistan/USA), Giuseppe Dalba (Italy), Awni Hallak (Jordan), Samar Hasanain (England), Irit Sagi (Israel), Paul Tucker (Germany) and Dan Tawfik (Israel) were the main speakers.

In the morning of the second day, all participants were invited to the Antique and Manuscript museum at Bibliotheca Alexandria. In the afternoon, the scientific program continued with talks on the environment and archeology. Faridah Jalilehvahd (Canada), Paul Dumas (France) and Phillip Walter (France) were the major speakers.

The scientific themes for the third day were physics and engineering, medical and biological sciences. Martjin Fransen (Netherlands), JP Connerade (France/UK), Amina Taleb-Ibrahim (France), Maged Al-Sherbiny (Egypt), Ahmed Elbedawi (Egypt), Mohammad Yousef (Egypt/Japan) and Abdel Maged Mamoon (Egypt) were the main speakers. Every session in the meeting was followed by short presentations on proposed projects.

In the concluding session, Zehra Sayers announced that positions are available for two beam line scientists and Françoise Muelhauser (IEAE) described a training program funded by IEAE for beam line scientists. Many points were discussed and recommended, most importantly, the formation of collaborative groups among SESAME members in different disciplines and also consortia of countries to build the Phase I beam lines.

Tarek Hussein said that Egypt will establish a central SESAME lab for sample handling and computational analysis. The center is expected to be a state-of-the-art facility linked to the SESAME project to serve and train scientists from the entire region.



Maged Al-Sherbiny



Zehra Sayers

The next SESAME Users' meeting is planned to be held in the new SESAME member country of Cyprus in September 2007.



Zahid Hussain (left) with Mohammad Yousef.

Against all odds, and due to the sincerity, dedication and persistence of a devoted team, SESAME is now a living reality. It stands as an outstanding opportunity to promote science and technology in the Middle East as well as to promote mutual understanding and cooperation. The beamlines will be a bright light of hope for many young scientists in the region. However, as the project moves from being wishful thinking to the actual beginning of phase I design and construction, important questions remain. How big is the "ready to go" user community? What are their needs? What are the factors that will help them work together? What is the availability of qualified staff, budget and commitments? These issues might be the themes of the next user meetings.

For more information about SESAME, visit www.sesame.org.jo.

Mohammad Yousef, Maged Al-Sherbiny and Tarek Hussein, Cairo U., Egypt

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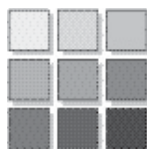
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