



"On the Issues and Problems of Scientific Research in the Arab World"

Conference

Conference Booklet

14-15 November,2006 Alexandria - Egypt

 ne Issues and Problems of Scientific Research in the Arab World" Conference Booklet / Table of Contents
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this publication, you will find all documents and useful information that you need for "On the Issues and Problems of Scientific Research in the Arab World Conference. It is prepared by the conference organizing committee to accompany during your stay in Alexandria.
Welcome to Bibliotheca Alexandrina.

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"On the Issues and Problems of Scientific Research in the Arab World" Conference

Organized by

Arab Fund for Economic and Social Development and Bibliotheca Alexandrina

Alexandria, 14-15 November 2006

Foreword

Background

In a world moving rapidly towards the economics of the 21st century, which focuses on knowledge, capacity-building in science and technology is considered an urgent need everywhere. Surely, the needs of Arab countries in this area have become even more so that facilitating capacity-building in the field of science and technology has become a priority in all regions of the world. The basic hypothesis resides in that all the nations and communities will continue to face many challenges and problems in scientific research, the resolution of which requires application of the latest scientific and technological knowledge.

In addition, the accumulation of knowledge and its technological applications is accelerated at dramatic rates. This is also assisted by the means of communication whose speed is becoming similar to the speed of light. However, the global reality reveals the failure of the arrival of many innovations to those strongly in need of them, in addition to that the need to build capacity in science and technology has not received sufficient attention from the international community so far.

The studies received in this area create an opportunity for executive political leaders and decision-makers in developing countries and especially the Arab countries to activate and support the means of broadening the base of science and technology suiting these countries and to provide collaboration opportunities between scientific and technological institutions in various countries of the world and supporting research institutions in their work and in their relationship with the private sector and with governments.

Global transformations that led to the rapid leaps in development rates in addition to the spread of modern knowledge in the major industrialized countries and their huge control over activities

and economic processes in the world, has become one of the basic subjects. This is compared to that developing countries still suffer from low incomes and the inability to have access to knowledge and adaptation of this knowledge to the needs of the community. Therefore, the appropriate environment should be provided for developing countries to obtain new ideas that are required to resolve the pressing problems that they face by the use of modern communication systems. Also, the existing policies in dealing with science and technology must be re-examined, in addition to supporting scientific and technological capabilities and the conviction that such support has a high economic return and that it is the only way to reduce the gap between those countries with knowledge, and those that do not possess knowledge on the basis that the investment in scientific and technological capabilities help to enrich the stock of knowledge.

Also, if universities are properly targeted, they can play an important role in capacity-building and the spread of scientific culture and values of science. This is one of the important factors affecting the construction of a knowledge society. Further progress can be made through regional cooperation among countries in the areas of training, scientific and technological capacity-building and through mission programs which will help speed up the building of human resources, especially if coupled with local programs supported by special educational science and technology policies. This is in addition to increasing the opportunity to communicate with the industrialized nations in the areas of advanced technology and the development of cooperation between the public and private sectors and then locate sources of funding.

Themes

1. Science, technology, and society: The role of policy

The need for a clear policy, in every country, for supporting scientific research, involving scientists in its development and implementation, and is known to the public at large.

2. Expanding human resources

Attention to human resource development and care for the development of educational curricula in mathematics and science sections, particularly at the level of basic education to secondary schools, and the need for the development of values and concepts of science research in universities.

3. Creating world-class research institutions

Establishing distinguished research institutions enjoying independence and commitment to the concepts of research.

4. Engaging the public and private sectors

The need for cooperation between the public and private sectors in financing scientific research, with the clarification of the responsibilities and rights of each of them.

5. Financing mechanisms for research and development in science and technology

Some views and suggestions on funding issues.

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	Dungaining at Dungaya
	Provisional Program

Conference at a glance (Subject to change)

Monday, 13 November 2006	20:00-22:00	Registration, Reception and Introductory Session (Palestine Hotel) Working Group 1 Working Group 2				
		Working Group 1 (BA Main Building- Floating	Working Group 2 (BA Main Building- Floating Room-			
		Room- Third Floor)	Fourth Floor)			
10	10:00-12:00	Session One: Science, technology, and society: The role of policy(1)	Session One: Science, technology, and society: The role of policy(2)			
2006	12:00-13:30	I	unch			
Tuesday, 14 November 2006	13:30-15:30	Session Two: Expanding human resources	Session Two: Engaging the public and private sectors			
Tue	15:30-16:00	I	Break			
14 N	16:00-18:00	Session Three: Creating world-class research institutions	Session Three: Financing mechanisms for research and development in science and technology			
	18:00-19:00	Visiting the VISTA				
	19:00	Departure				
	20:00	Dinner (Le Prince)				
	9:30-11:00	Session One: V	isiting Presentations			
	11:00-11:30	I	Break			
Wednesday, 15 November 2006	11:30-13:00	Session Two: Support mechanisms for stimulating and activating scientific research in the Arab countries				
sda	13:00-14:30	Lunch				
Wednesday, November 20	14:30-16:00	Session Three: Reporting the Conference Sessions				
We No	16:00-16:30	I	Break			
15.	16:30-18:30		nmendations and Suggestions			
	18:30-20:30		Alexandrina Tour			
	20:30-23:00	Departure and l	Dinner (Syrian Club)			

Detailed Program

(Subject to change)

	Monday, 13 Novem (Palestine hote	
20:00-22:00	Registration, Reception and Introductory Session	n
	Tuesday, 14 Novem (Bibliotheca Alexan Working Group 1	
10:00-12:00 Day 1 12:00-13:30	Session One: Science, technology, and society: The role of policy(1) Chair: Fayza ElKharafy, Former president, Kuwait University (Kuwait) Ahmad Mansour Mansour, Lecturer, Genetic department, Agricultural Genetic engineering branch, Faculty of Agriculture, Zagazig University (Egypt) "The problems of scientific research in the Arab world between truth and myth" Mohamed El-Sharkawi, Professor of Electrical Engineering, Computational Intelligence Research Laboratory, Department of Electrical Engineering, University of Washington (USA) "Research for sustainable Economic Development, not Just for Prestige" Eid Battah Al-Duwaihis, Head of Planning Office, Kuwait Institute for Scientific Research (Kuwait) "Proposals on the issues and problems of scientific research in the Arab world" Discussion	(BA Main Building- Floating Room- Fourth Floor) Session One: Science, technology, and society: The role of policy(2) Chair: Venice Kamel Gouda, Former Egyptian Minister of Scientific Research (Egypt) Saad S.M. Hassan, Professor, Department of Chemistry, Faculty of Science, Ain Shams University (Egypt) "The Status and Prospective of Science and Technology in the Arab Countries" Yehia Halim Zaki, Head of Academic and Cultural Sector, Bibliotheca Alexandrina (Egypt) "Scientific Research in Egypt" M. Ashraf El-Bayoumi, Professor of Biophysics and Chemistry, Alexandria University. (USA) "Politics of Science in the age of Globalization" Discussion
12:00-13:30	Lunch	

13:30-15:30	Session Two: Expanding human resources Chair: Salah Soliman ,Special Advisor to the Director , Bibliotheca Alexandrina Mouïn Hamzé, President , National Council for Scientific Research (NCSR) (Lebanon) "Establishing a Euro-Mediterranean forum for research in food and agricultural sciences: the role of the CIHEAM and the 7th PCRD" Rafik Nakhla, Director, Human Resources Department, Bibliotheca Alexandrina (Egypt)	Research Department, The Kuwait Foundation for the Advancement of Sciences (KFA) (Kuwait)
Day 1	Discussion	Discussion
15:30-16:00	Break	
16:00-18:00	Session Three: Creating world-class research	Session Three: Financing mechanisms for
	Chair: Magdy Madkour, Arid Lands Agricultural Research Institute (ALARI) Bassem El Menshawi, Regional Coordinator for Northern Africa, NEPAD Science and Technology Forum (Egypt) "Towards an Integrated Research Policy in the Area of Drug Discovery in the Arab Countries" Osman Shinaishin, Senior Program Manager, Office of International Science & Engineering, National Science Foundation (USA) "Comments on a Number of Successful Institutions in Developing Countries" Mamoun Muhammed, Professor of Materials Science and Engineering, KTH (Royal Institute of Technology) (Sweden) "Concerted	research and development in science and technology Chair: Ibrahim Badran, Egyptian Former Minister of Health and Professor of Surgery (Egypt) Adel El Beltagy, Chair, the Global Forum on Agricultural Research(GFAR) "The Perils of Science and Technology Policy: Lessons Learned" Adnan Shihab-Eldin, Former Acting Secretary General of the Organization of Petroleum Exporting Countries (OPEC) (Austria) "The need for Pan Arab R&D, its role and how to make it happen. Establishing an Arab fund for Science and technology" Riad Abdel Latif Bayoumi, Professor and Head of Clinical Biochemistry, the College of Medicine, Sultan Qaboos University (Oman) "Research Assessment Exercise"
Day 1	Discussion	Discussion
18:00-19:00	Visiting the VISTA	
19:00	Departure Discourse (I. D. i. a. I. C.	
20:00	Dinner (Le Prince-Montazah Gardens)	

	Wednesday 15 November 2006
	(Second Floor Meeting Room-BACC)
9:30-11:00	Session One: Visiting Presentations
	<u>Chair:</u> AbdelRazek Kandeil, Professor, Arab Academy for Science and Technology and Maritime Transport (Egypt)
	■ Yves QUÉRÉ, Co-Chairman, InterAcademy Panel on International Issues (France) "Developing the capacities of Academies of Sciences"
	■ Robert Kriger , Head of Systems, Policy & strategy unit, NRF (South Africa) "The development of South Africa's S&T and Innovation policies"
	■ Huanming Yang, Institute of Genetics, Chinese Academy of Sciences (China) "Creating World-Class Research Institutions in the Developing Countries"
Day 2	Discussion
11:00-11:30	Break
11:30-13:00	Session Two: Support mechanisms for stimulating and activating scientific research in the Arab countries
	<u>Chair:</u> Adel El Beltagy, Chair, the Global Forum on Agricultural Research(GFAR) (Egypt)
	■ AbdelNabi Fardous, Director General, the National Center for Agricultural Research and Technology Transfer (NCARTT) (Jordan) "Suggestions on support mechanisms for stimulating and activating scientific research in the Arab countries"
	■ Mohamed El-Sharkawi, Professor of Electrical Engineering, Computational Intelligence Research Laboratory, Department of Electrical Engineering, University of Washington (USA) "The five recommendations to initiate research in the middle east"
	■ Mohamed El-Faham, Director, Center for Special Studies & Programs (CSSP), Bibliotheca Alexandrina(Egypt)" Networks of International Collaboration: Keys to Research Advancement"
Day 2	Discussion
13:00-14:30	Lunch
14:30-15:30	Session Three: Reporting the Conference Sessions
	Rapporteur: Rafik Nakhla, Director, Human Resources Department, Bibliotheca Alexandrina (Egypt)
Day 2	
15:30-16:00	Break
16:00-18:00	Closing Session – Recommendations and Suggestions
	<u>Chair:</u> Ismail Serageldin, Director, Bibliotheca Alexandrina (Egypt)
	 Hany Helal, Minister of Higher Education and Scientific Research (Egypt)
	 Hassan Nadir, President, Alexandria University (Egypt)
Day 2	Ismail Serageldin, Director, Bibliotheca Alexandrina (Egypt)
18:30-20:00	Bibliotheca Alexandrina Tour
20:00-22:30	Departure and Dinner (Syrian Club-Downtown)
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ABDUL-SALAM, Jasem

Prof. of Parasitology, Kuwait University (Kuwait)

ABOUAYANA, Fathy

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AL-DUWAIHIS, Eid Battah

Head of Planning Office, Kuwait Institute for Scientific Research (Kuwait)

AL-KUWARI, Noura

Assistant Professor of Human Ddemography, University of Qatar (Qatar)

AL -MUTAIRI, Naji

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Egyptian Former Minister of Health and Professor of Surgery (Egypt)

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DUWAYRI, Mahmoud

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EL-BAYOUMI, M.Ashraf

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EL GAWHARY, Salah-eddin

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GHASSIB, Humam

Head, Research department, Arab Thought Fforum, Faculty of Science, University of Jordan (Jordan)

GOUDA, Venice Kamel

Research Professor, the National Research Center, and Former Egyptian Minister of State for Scientific Research (Egypt)

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HAFEZ, Mahmoud

Professor, Faculty of Science, Cairo University (Egypt)

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Head, Academic and Cultural Sector, Bibliotheca Alexandrina (Egypt)

HAMID, Ali. M.

Chair, Department of Education and Scientific Research, Arab League (Yemen)

HAMZÉ, Mouïn

Secretary General, International Center for Advanced Mediteranean Agronomic Studies(CIHEAM) and President, National Council for Scientific Research (NCSR) (Lebanon)

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Co-Chairman, InterAcademy Panel on International Issues (France)

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YANG, Huanming

Institute of Genetics, Chinese Academy of Sciences (China)

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Director, Dialogue forum, Bibliotheca Alexandrina (Egypt)

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ZAKI, Asser

Professor of Electrical Engineering, Alexandria University. Advisor, Arab Academy for Science and Technology and Maritime Transport. Board Member, Center for Special Studies and Programs, Bibliotheca Alexandrina (Egypt)

"On the Issues and Problems of Scientific Research in the Arab World" Conference / Participants' Biographies & Abstracts
Participants' Biographie
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& Abstract

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ABOUAYANA, Fathy

Emeritus Professor of Human Geography, Faculty of Arts, Alexandria University (Egypt)

Prof. Abouayana obtained his PhD from Alexandria University is 1971. Dr. Abouayana devoted his academic efforts in the field of population studies. His book entitled :Population Problems in the Arab World" published in the late eighties is main reference for population studies and research in the Arab region. Dr. Abouayana was elected dean of the Faculty of Arts, Alexandrina University in 1993, then he was appointed vice-president of Alexandria University in 1995, then president of Beirut Arab University in 1998. Dr. Abouayana is now vice-president of the Egyptian Geographical Society and an active member in Alexandria Society through his efforts in NGOs.

AL-DUWAIHIS, Eid Battah

Head of Planning Office, Kuwait Institute for Scientific Research (Kuwait)

Abstract

Proposals on the issues and problems of scientific research in the Arab world

This paper focuses on proposing concrete solutions to the main problems of scientific research in the Arab world We have a problem of ignoring important areas of science such as management, economics and sociology from the scientific research sector or considering them secondary sciences and we a have a problem in choosing the science types that are appropriate for us, so is it the basic sciences or applied developmental sciences applied science or studies and consultations. As Some of these types are not suitable for us. The problem we have is in the selection of the administrative subordination of the research institutes, so will they be independent or affiliated to the universities and whether the independent ones will be affiliated to the ministries or separated from them.

AL-KUWARI, Noura

Assistant Professor of Human Demography, University of Qatar (Qatar).

Dr. Noura Yousuf Mubarak Al-kuwari is an Assistant professor of Human Geography (urbzation and population) at Faculty of Education; Qatar University; Doha-Qatar.she received a Bachelors of Art in Education (BAE) in 1979 and a Bachelors of Art in Geography (BAG) in 1980 from Faculty of Education; Qatar University; Doha-Qatar.she received her Masters of Arts in Geography (MAG) in 1987 and Doctorate of Arts in Geography (DAG) in 1994 from Department of Geography; Faculty of Arts; University of Cairo.her research interests are in the field of Demographic studies – Social Geography and Environmental studies – Geography of Urbanization and services . she is currently a member of The national committee for forming the demographic policy in Qatar (2006). Since 2004 she is a member of The Gulf geographical society and Society of academic guidance in the Geography program and since 1997 till today a member of The Egyptian geographical society.. She was a member of The team of studying the benefit of the 2004 census (2005), of The project of the demographic strategy in the State of Qatar (2004-2005), of the committee of Academic Guidance in school of humanities and social sciences (1996-1997) and the Committee of experimentation and follow-up of the geography curricula of the secondary stage of education (1995-1996).

AL -MUTAIRI, Naji

Director, Environment and Urban Development Division(Engineering and Environment), Kuwait Institute for Scientific Research and Director, Research Directorate, Kuwait Foundation for the Advancement of Sciences (Kuwait)

Dr. Naji Al –Mutairi is the director of the Environment and Urban Development Division (Engineering and Environment) , Kuwait Institute for Scientific Research and the director of the Research Directorate of the Kuwait Foundation for the Advancement of Sciences. He received his B.S. in Civil Engineering and B.S. in Architectural Engineering in 1982 from University of Miami Miami, FL, USA.He received his M.S. in Civil Engineering (Structural Engineering) in 1986, Pennsylvania State University, State College, PA, USA and Ph.D in Civil



Engineering (Structural Engineering) in 1989, University of Maryland, College Park, MD, USA. He is a member of the Kuwaiti Society of Engineers, of the American Society of Civil Engineers, of the American Concrete Institute, of the American Concrete Institute, Kuwait Chapter and of the International Union of Testing and Research Laboratories for Material and Structures (RILEM). His areas of Professional Interest are Concrete technology, assessment of structural damage, behavior of reinforced concrete structural elements, fatigue behavior of structural steel and reinforced concrete, analysis and design of concrete and steel structures, experimental stress analysis, and computer-aided design.

AL-SHAMLAN, Ali

Director General, The Kuwait Foundation for the Advancement of Sciences (Kuwait)

Dr. Ali Al Shamlan is a professor at Kuwait university, Kuwait. He received his B.S. Degree in Geology in 1967 from University of Puget Sound, USA, M.S. Degree in Geology in 1971 from University of Texas at El Paso, USA, and Ph.D. Degree in Geology in 1973 from University of Kuwait, Kuwait. He also received an Honorary Ph.D. Degree from University of Massachusetts, Amherst, MA. USA in 2001. He is a former Minister of Higher Education – Kuwait (1988-1992). He served as Assistant Dean (1978 – 1982) and Dean (1982 – 1984) of Faculty of Sciences, Kuwait University. He is a former Chairman of Geology Department,



Kuwait University (1975 – 1978). He has been the Director General of Kuwait Foundation for the Advancement of Sciences since 1985 till present date. He published eleven Scientific Papers, one geological book and supervised a thesis at master degree level. He is a member of the American Association of Petroleum Geologists, of the Society of Economic Paleontologists and Mineralogists, of The Academy of Sciences for the Developing World (TWAS), of the Council of the Islamic Foundation for Sciences, Technology and Development, of the Higher Council of Traffic, Ministry of Interior, Kuwait and of the International Academy of Information, Russia. He is also a member of the board of trustees of Gulf University for Science & Technology, Kuwait, of Oxford Centre for Islamic Studies, Oxford University, United Kingdom and of Princess's School of Traditional Arts, United Kingdom.He is Vice President of the Arab Academy of Sciences, Beirut, Lebanon & of the The Academy of Sciences of the Developing World (TWAS).

B

BADRAN, Ibrahim Egyptian Former Minister of Health and Professor of Surgery (Egypt)



Professor Ibrahim Badran was born in 1924, in Egypt . He had his M.B. CH.B from Cairo University , Faculty of Medicine in 1947, and his M.Ch, M.D. from Cairo University in 1951. Professor Badran is one of the leading and eminent surgeons and he is known as the father of Surgery in Egypt . He has been a University Professor and Chairman of Surgery Department, Cairo University since 1966, President of the University, 1978–1980.

He served as the Egyptian Minister of Health (1976–1978). He was the President of the Academy of Scientific Research and Technology (1980–1984), Chairman of the Specialized Research Council of Medical Sciences since 1984, Chairman of National Social Services Council since 1996, member of Supreme Council of Islamic Affairs, member of Islamic Research Organization, Al-Azhar since 1995, Medical Consultant of WHO, member of the board of governors of the Islamic Medicine Organization, Fellow of Royal Society of Medicine, Chairman of the Specialized National Council for Medicine in Egypt. He was awarded the Republic Order, First Grade, Egypt, 1983; Honourable Order, France, 1983. Order of Recognition, First Grade, Egypt, 1985.

Professor Badran was awarded Honorary Doctorates from Menoufia University, 1983; Honorary Doctorate from American University in Cairo, 1988; Honorary Fellow of the World Surgeons Faculty, 1990. He is author of 7 books dealing with health policy in Egypt, future of scientific research, development of university education and development of human resources. Professor Badran has 120 scientific papers in surgery and articles in different medical and social disciplines. Professor Badran was elected a Fellow of the IAS in 2001.

BAHRI, AkissaDirector for Africa, IWMI Regional Office International Water Management Institute (Tunisia)



Akissa BAHRI is an agricultural engineer with Ph.D degrees from France and from Sweden. She has worked in the field of agricultural use of marginal waters (brackish and waste water), sewage sludge and their impacts on the environment. She has been working for the National Research Institute for Agricultural Engineering, Water and Forestry in her home country Tunisia, where she was in charge of research management in the field of agricultural water use. She has been involved in policy and legislative issues regarding water reuse and land application of sewage sludge, and is a member of different

international scientific committees. She has joined in 2005 the International Water Management Institute as Director for Africa. She has received international honors, including being elected in 2000 to the International Water Academy and in 2003 to the Third World Academy of Sciences.

BAYOUMI, Riad

Professor and Head of Clinical Biochemistry, the College of Medicine, Sultan Qaboos University (Oman)

Riad A.L Bayoumi was educated in Khartoum and the UK. He obtained his Medical Degree (MB BS) in 1967, his PhD (Biochemistry) in 1973, his MRC Path (Clinical Biochemistry) in 1975 and FRC Path in 1995. He is currently Professor and Head of Clinical Biochemistry in the College of Medicine at Sultan Qaboos University in Muscat, Sultanate of Oman. His previous positions included: Assistant, associate and Full Professor of the University of Khartoum, Sudan from 1977-91 and Professor of Biochemistry at United Arab



Emirates University from 1991-97. He has made important contributions to human genetics research in the Sudan, UAE and Oman. In the study of genetic diseases he was instrumental in mapping of Jubert Syndrome, Hereditary Spastic Paraplegia and Multiple Epiphyseal Dysplasia.

$\overline{\mathbf{D}}$

DUWAYRI, Mahmoud

Professor, Faculty of Agriculture, Jordan University (Jordan)

Dr. Mahmud Duwayri is Professor at Faculty of Agriculture, University of Jordan, Amman, Jordan. He received his B.Sc. in Agriculture; Soils and Irrigation in 1968, his M.Sc. in Agronomy; Weed Control in 1970 from the American University of Beirut, Beirut, Lebanon, and PhD in plant breeding and plant genetics in 1973 from University of Wisconsin, Madison, Wisconsin. he is also Editor in Chief, Jordan Journal of Agricultural Sciences (An International



Refereed Journal issued by Higher Scientific Research Committee of the Ministry of Higher Education and Scientific Research and Deanship of Academic Research, University of Jordan). He served as former Minister of Agriculture, Jordan (2001-2002), former Director, Plant Production and Protection Division, Food and Agriculture Organization of the United Nations, Rome, Italy(1998-2001). Worked as a consultant for several regional and international agencies in the fields of agriculture development and policy, scientific research and higher education development. Represented the Middle East and North Africa Region in several scientific commissions and agricultural forums... He served as President of Higher Council for Agriculture, Jordan and the chair of the National Steering Committee on Agriculture Research and Technology Transfer, Jordan.

E

EL-BAYOUMI, Ashraf

Prof. of Biophysics and Chemistry, Alexandria University (United States of America)

Former Professor of Physical Chemistry and Molecular Biophysics. At Michigan State University, and of Physical Chemistry at AlexandriaUniversity in Egypt. Former Visiting professor at the University of Paris, and the University of California-Berkeley Former Associate Director of Alexandria Research Center Science interests: Time Resolved Spectroscopy and Ultra Fast Dynamics of Excited Molecular Systems. Science Policy and Institutional Development in Egypt.



His parallel interests are: Human Rights activism in Egypt and the U.S., currently the vice-president of Alexandria Association of Human Rights Advocates. Writing and lecturing on various sociopolitical issues including Human Rights, Environmental Pollution, Science Policy, Academic Freedom Globalization, Imperialism, Zionism ..etc

EL-BELTAGY, Adel

Chair, The Global Forum on Agricultural Research (Egypt)



He is the Chair of Global Forum on Agricultural Research (GFAR) and Professor of Arid Land Agriculture (ALA) at Faculty of Agriculture, Ain Shams University, Cairo. Prof Dr Adel El-Beltagy, is presently the Director General of the International Center for Agricultural Research in the Dry Areas (ICARDA) since 1995 till present date.he received his Ph.D from University of Wales, UK.. his area of specialization is Stress physiology. His major research and development interest is Arid Land Agriculture. Established the Arid Land Agriculture Laboratory at Ain Shams University (1981) & the National Agricultural Genetic

Engineering Laboratory (NAGEL) in 1990, which was renamed in 1992 as Agricultural Genetic Engineering Research institute (AGERI). He was the First Under-Secretary of State for Land Reclamation, Egypt (1987-1991) .he served as the Director/Board Chairman of Agricultural Research Center, Egypt (1991-1995) & chairman of the National Supreme Council for Research and Extension in Egypt (1991-1995), of Executive Board, Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD) (1989-1995) , of Scientific Technical Council of the International Sahara and Sahel Observatory (OSS) (1993-2002) and of the CDC Integrated Natural Resource Management Committee (INRM) (2003-2006)

Founding Member of the British Plant Growth Regulator Group, member of the American Association for the Advancement of Science (AAAS), of the International Plant Growth Substances Association, of the International Society for Horticultural Science, of the Society for Experimental Biology, UK. of the World Water Council (WWC) and of the International Society for Horticultural Science . he is Fellow of the Third World Academy for Science (TWAS). He was awarded many awards such as Golden Pen of the International Society of Horticultural Science (1982) , Honorable Academician of the Kyrgyz Agrarian Academy (2001), Academic Status of Honorable Professor of the Scientific Council of Azerbaijan Agricultural Academy (2004), and Al-Istiklal Medal by his Majesty King Abdullah II bin Al Hussein of Jordan (2005). Member of the CDC ICWG - Climate Change, 2004-2006 , of the CDC Millennium Ecosystem Assessment Board, 2004-2005, and chair of CDC Task-Force for Central Asia and the Caucasus of Central and West Asia and North Africa (CWANA) 1999-2006, Integrated Natural Resource Management (INRM) 2004-2006. he is Author/Co-author of more than 100 scientific publications.

Abstract

The Perils of Science and Technology Policy: Lessons Learned

The past decade witness an exponential growth of scientific discoveries and innovations. Some of the major science and technology contributors have faded into insignificance whiles other are thriving and growing. The presentation aims at exploring there reasons and of failures and enabling for success. A contrast will be presented between the case European Union and the countries of the ex-Soviet Union (Central Asia and the Caucuses). Understanding such key successes/failure factors may help in projecting a new dawn for science and technology in the Arab world.

EL-FAHAM, Mohamed

Director, Center for Special Studies & Programs (CSSP), Bibliotheca Alexandrina (Egypt)

Dr. Mohamed El-Faham is a professor of Electrical Engineering at the Arab Academy of Science & Technology, Alexandria, Egypt. He received his BSc from the Alexandria University and his MSc and DSc from George Washington University. He is a Senior Member of the Institute of Electrical and Electronic Engineers (IEEE), and is author/co-author of a member of publications. As Director of CSSP, he organizes a number of major annual scientific and technological conferences, and supports young Egyptian researchers through establishing sustainable networks of international collaboration.



Abstract

Networks of International Collaboration: Keys to Research Advancement

Enhancing science and technology in developing countries has become a true necessity and not a luxury. Strong science and technology capacities are essential in addressing critical issues facing the world today; such as poverty, hunger, disease, globalization and sustainable use of natural resources. A key element to improvement is research advancement. Unfortunately, research in the Arab countries faces many challenges, among which is the difficulty of keeping locally trained talents at home, or of attracting Arab nationals who have obtained their degrees at foreign institutions, chiefly in developed nations. These factors contribute to the so-called 'brain drain', which is a major obstacle to building and sustaining indigenous scientific talent. Another challenge faced is the deterioration of research quality within these countries once their scholars return from abroad, due to diminished collaboration with previous counterparts in the industrialized nations. Insufficient funding of research is also a difficulty, that must be tackled. The need for partnerships, and networks of collaboration is, therefore, manifest.

Bibliotheca Alexandrina is committed to catalyzing the progress of science and technology in the region, and through its Center for Special Studies and Programs (CSSP), has launched a research grant program to fund outstanding young postdoctoral scientists in Egypt, who undertake collaborative projects across the science and technology spectrum. The program tackles the unavailability of sufficient financing while evading bureaucracy faced by researchers in acquiring of funds. It also bestows equal opportunities to all researchers, for selection is based on research excellence and not seniority. CSSP is a hub, creating and sustaining networks of international collaboration. It recognizes the pool of untapped potential available in young scientists and by their bolstering, aims to empower the nation's research and knowledge capacities. It is these points that the paper addresses.

ELGHAZALY, Essa

General Director, The Arabic Institute of Planning (Kuwait)

Dr. Essa Al-Ghazali, a Kuwaiti national, is the Director General of The Arab Planning Institute (API) (an Arab Regional Organization - Kuwait) since October 1996. He holds a Ph.D. in Public Administration from Exeter University (United Kingdom, 1989), and a Master Degree in Public Administration from the University of Southern California (USA, 1984). Before becoming API's Director General, Dr. Al-Ghazali was the Under Secretary of The Coordination and Follow Up Committee in the Kuwaiti Council of Ministers (1992-1996). Prior to that he served as a Teaching Assistant and a Lecturer in the Faculty of Administrative Sciences in Kuwaiti University (1983-1992). In recognition for his services to building human capital in the Arab Countries Dr. Al-Ghazali was honored with Legion of Independence (second degree), awarded by His Majesty King Abdullah the Second, King of Jordan in 2001. Dr. Al-Ghazali is a member of the Executive Committee of the International Institute of Administrative Sciences (IIAS, Belgium) since 1998, and a member of the American Society for Quality Control (USA) since 1992. His main areas of interests are in the fields of Public Administration, Organizational Development, Human Resources Development.

EL GAWHARY, Salah-eddin

Prof., Agriculture, Cairo University (Egypt

Prof. Dr. Salah-eddin el Gawhary received his BSc. in 1960 from Cairo University, M.Sc in 1965 from University of California, USA and Ph.D in 1968 from Colorado State University, USA. He was Assistant Professor at Purdue University, W.Lafayette, Indiana, USA (1969-72) and at University of Alabama, Huntsville, Alabama, USA (1972-76). He was a Visiting Professor at University of Jordan, Amman, Jordan, (1976) and a Professor at Michigan State University, E.Lansing, Michigan, USA (1977-79). He Served concurrently as consultant for the World Bank, Washington, D.C. (1978-1979), the U.S. Department of Energy/Rockwell International. (1979) on hazardous and nuclear waste, and the U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, USA as a Senior Research Scientist and Manager to a joint University project (1978). He served with the United Nations Organization as Senior Soil Scientist, Food and Agriculture Organization of the United Nations (FAO), September 1979-1988, Principal Adviser on Environmental Planning and Development, United Nations Environment Programme (UNEP) and the UN Department for Economic and Social Affairs (DESA), from early 1988 to April 1992, and Chief Environment Adviser, World Meteorological Organization (WMO) of the United Nations, May 1992 till retirement in 1998.

Between early 2002 and late 2004 served as Principal Adviser to the Minister on multilateral cooperation, Ministry of Industry and Information Technology, Egypt.

EL-GINDY, Abdel-Ghany .M. Dean & Professor, Faculty of Agriculture, Ain Shams University (Egypt)



Dr. Abdel-Ghany .M. El-Gindy is an Independent Consultant in Irrigation and Drainage. He received his B. Sc Agricultural Engineering, Alexandria University , alexandria , egypt , M. Sc in Agricultural Engineering from Ain Shams University in 1972 and Ph.D. in Agric Engi from Irrigation Res Inst, Sarvas, Hungary in 1977. he is Senior agricultural engineering and on-farm irrigation expert with over 35 years experience in designing, implementing and supervising agricultural engineering and on-farm irrigation projects in Egypt, Sudan, Pakistan, Saudi Arabia and Bahrain.he isPrincipal investigator and advisor in the field on-farm irrigation for agricultural engineering project, financed by the Arab Organization for Agricultural Development

(AOAD), International Center for Agricultural Research in Dry Area (ICARDA), World Bank (WB), Food & Agriculture Organization (FAO).he is Director of Agricultural Engineering Research Institute, MOLAR, Egypt, with the responsibility for production and research projects involving the identification, formulation, preparation and conducting of production, research and training programs, workshops and seminars in the field of agricultural engineering and on-farm irrigation Short term irrigation and drainage consultant (IPP). Evaluating of Bustan Agricultural Development Project 2004.he is Short term Irrigation Consultant, Developing the on-farm Irrigation Systems to Utilize water waste (ICARDA) 2002,

EL-HAGGAR, Salah M.

Professor of Energy and Environment, Mechanical Engineering Department, Cairo University and The American University in Cairo (Egypt)

Dr. SALAH M. EL-HAGGAR received his B.Sc in 1972 & M.Sc in 1978 from ,Mech. Eng. Dept , Ain Shams University, Cairo, Egypt, and the Ph.D in 1983 from Mech. Eng. Dept, Washington State University, USA.

Dr. El-Haggar has more than 20 years experience in Energy and Environmental Consulting and University teaching. Dr Haggar has been a visiting professor at Washington State University and at University of Idaho, U.S.A. He is presently the professor of Energy and Environment at the American University in Cairo, Mechanical Engineering Department. Dr. El-Haggar has more than 20 Academic Honors, grants and awards. Dr. El-Haggar received the outstanding teaching



award from AUC in 1995 as well as a number of outstanding trustees awards. In addition Dr. Haggar has 121 Scientific Publications in Environmental and Energy Fields, 33 invited presentation, 45 technical report and 12 books. Dr's Haggar Environmental Consulting experience include more than 40 Environmental/Industrial Auditing for major industrial identities, 20 Compliance Action Plan, 9 Environmental Impact Assessment in addition to his extensive consulting experience in Environmental Engineering, Environmental Auditing, Costal Zone Management, Environmental impact assessment EIA, Environmental management systems EMS, Energy management, Hazardous and non-Hazardous Waste management, Recycling, Pollution prevention and waste minimization, zero pollution, Biogas/Solar/Wind technology, Community/Desert development, Solid and industrial waste, environmental assessment for the local government and private industries. Dr. Haggar is a member/board member in 14 national and international societies in the area of Mechanical Engineering, Environmental Engineering and community development.

Dr. El-Haggar has been a Chairman of Mechanical Engineering Department (1993-1995). He is currently the Vice President for one of the top Central NGO in Egypt dealing with Solid Waste Management, "The Association for the Protection of Environment (APE)" since 1997.

EL-MENSHAWI, Bassem

Regional Coordinator for Northern Africa and Professor of Pharmacognosy, NEPAD Science and Technology Forum, (Egypt).



- -Former Vice President for Research of the National Research Centre of Egypt "NRC" (2000-2004).-Professor of Pharmacognosy, NRC (since 1988-present).
- -Head & Founder of the In-Vitro Bioassay Cell Culture Laboratory, NRC (2003-present)-NEPAD Science and Technology Regional Coordinator for Northern Africa (2004).Director and Co-Founder of the "Drug Bioavailability/ Bioequivalency Specialized Unit", at NRC Medical Service Unit, accredited by Ministry of Health,

Egypt, to serving the pharmaceutical industries in Egypt (since 2005-present). Ph.D. (1975) and M. Sc. (1972) in Pharmaceutical Sciences (Pharmacognosy) from Cairo University, Egypt, and B. Sc. in Pharmacy & Pharmaceutical Chemistry from Assiut University in Egypt (1967).. Post-Doctoral Fellowship, at the Institute of Pharmaceutical Chemistry, of the Westfalian-Wilhelms University, Muenster, Germany (1975 -1977). The inventor of the "Novel treatment of the skin diseases vitiligo and psoriasis by oral Khellin", trade name: Psorvitil, of Memphis Chemical Co, Egypt (1981); and the inventor of the patent "Novel medicinal preparations based on Salvadora persica =Miswak", Cairo Patent Office, EC-17062, trade name: Epident, by Eipico pharmaceuticals, Egypt (1985). Principal Investigator of project entitled "The use of biotechnological methods for drug discovery: antitumors, cancer chemo-preventives, antivirals, immunomodulatories & schistosomicides from Egyptian plants", funded by Academy of Scientific Research and Technology, Cairo,). Principal Investigator of project entitled "active plant constituents and derivatives as novel molluscicides" funded by the Schistosomiasis Research Project - US-AID & Ministry of Health-Egypt (1994-1998). Chaired several NRC Committees responsible for: overseeing the development of a strategic planning for scientific programs, and administering the research projects funded by the NRC and other national and foreign agencies (2000-2004). Initiated cooperative agreements between NRC and several universities and research institutions in Europe, Asia, North and Latin America, and Africa. Chaired the NRC Committee for Planning of "Drug Discovery Research Area" (1998-2000). ,. Published more than 65 papers in international and Egyptian periodicals; and presented lectures in front of more than 30 international conferences held in Europe, North America, Asia and Africa

Abstract

Towards an Integrated Research Policy in the Area of Drug Discovery in_ the Arab Countries (Including mechanisms to better utilization of their terrestrial and marine wealth)

This paper will throw light on the different Strategies and Approaches used in the Area of Drug Discovery Research, where their strengths, weakness, opportunities, and threats will be reviewed. The current research lines in the Arabic universities and research centers will be discussed, and mechanisms will be proposed for better utilization of the plant and marine wealth in Drug Discovery research and industry. In this frame, the "bioassay-guided fractionation" approach will be discussed versus the "phytochemical fractionation" approach, for their capacity towards the detection, and isolation of therapeutically active constituents from the natural extracts (plants and marine organisms). The increasing use of invitro- bioassays versus in-vivo bioassays will be discussed, for screening of libraries of synthetic chemicals and crude extracts for a specific medicinal effect. The design and summary of work of an ongoing project which utilizes biotechnological methodologies for drug discovery from Egyptian plants conducted at the National Research Centre-Egypt will be presented as example to target specific medicinal effects, namely: (1) schistosomicidal, (2) antitumor, (3) cancer chemopreventive [anticarcinogenic], (4)immunomodulating, and (4) antiviral activities._____ This work is funded by The Acad. Sci. Res. & Technol., and NRC, Egypt, under the project: "The use of biotechnological methods for drug discovery from Egyptian plants", Contract # 10- 1997, Phase I (1998-2003), Phase II (2004-7)._

ELNAGDI, Mohammed H.

Professor, Chemistry Department, Faculty of Science, Cairo University (Egypt)

Prof. Dr. Mohamed Hilmy Elnagdi, born in Elmansoura, (Egypt) September 1st 1941. B. Sc. 1962; M. Sc. 1966; Ph.D. 1969 (all from Cairo University). Diploma in Chemistry and Chemical Engineering, 1973 (Tokyo Institute of Technology, Japan). D. Sc. 1982. Professor in Cairo University since 1980; second anted to University of Kuwait 1993-1999.

Head of Chemistry department, Faculty of Science, Cairo University 1999-2001. Visiting professor in Uta University 1996. N.T.N.F. fellow (Norway) 1997-1998. AvH fellow 1979-1980; 1983, 1984, 1985, 1987, 1989, 2000.



Visiting professor in Kuwait University 2003. Three hundred forty published papers and reviewed articles. 165 M. Sc and Ph. D. students (five in Kuwait). Teacher of chemistry in all Egyptian universities and University of Gar Unis Libya.

Awarded: Egypt award of chemistry 1975; Egypt first class ribbon for science and arts 1977, Cairo University Chemistry award 1984; TWAS (international) Chem. Award 1990. Egyptian academy of science award for excellence in basic science 2001; COMESTECH Chem. Award 2002; Cairo University award 2005; most sited third world chemist (ISI list in period 1980-1997). Research lecturers and consultancy in Germany, UAS, UK, Switzerland, Denmark, Japan and France.

ELSHARKAWI, Mohamed

Professor of Electrical Engineering, Computational Intelligence Research Laboratory, Department of Electrical Engineering, University of Washington (United States of America)



Mohamed A. El-Sharkawi is a Fellow of IEEE. He received his B.Sc. in Electrical Engineering from Cairo High Institute of Technology (Currently, Helwan University) in 1971, and his Ph.D. in Electrical Engineering from the University of British Columbia in 1980. In 1980 he joined the University of Washington as a faculty member where he is presently a Professor of Electrical Engineering. He also served as the Associate Chair and the Chairman of Graduate Studies and Research.Professor El-Sharkawi served as the Vice President for Technical Activities of the IEEE Computational Intelligence Society. He served as a member of the

administrative committee of the IEEE Neural Networks Council representing the IEEE Power Engineering Society, and was the society's Multi-Media chair. He is the founder of the international conference on the Application of Neural Networks to Power Systems (ANNPS) and co-founder of the international conference on Intelligent Systems Applications to Power (ISAP). He is the founder and chair of the Northwest Energy System Symposium (NWESS). He is also a member of the organizing committees of numerous regional and international conferences. Professor El-Sharkawi is the founding chairman of numerous IEEE task forces, working groups and subcommittees. He organized and chaired numerous panels and special sessions in IEEE and other professional organizations. He organized and taught several international tutorials on intelligent systems applications, energy management systems, renewable energy, electric safety, load forecasting, vulnerability assessment, VAR management, and power systems operations. Professor El-Sharkawi is a member of the editorial boards and is the associate editor of several journals. He served as editor/co-editor of several IEEE tutorial books on Intelligent Systems and Applications. He published over 200 papers and book chapters in his research areas. He authored two textbooks on fundamentals of Electric Drives and Electric Energy: An Introduction. He also authored and co-authored 4 research books in the area of intelligent systems. He holds 5 licensed patents in the area of renewable energy VAR management, and minimum arc sequential circuit breaker switching. Professor El-Sharkawi served as an external evaluator for several engineering and research programs in Middle-East universities. He also consults in the areas of electric safety, system's operation and control, power systems, renewable energy and intelligent systems.

Abstract

Research for Sustainable Economic Development, not Just for Prestige

The successful models for sustainable development in emerging economies remain intrinsically attached to adequate management of resources, knowledge, and innovation. These factors have undoubtedly provided the most resilient and solid foundations for economic growth, industrial diversification and modernization, and the improvement in the standard of living_In the Middle-East, the advancement of education, from literacy campaigns to higher education, has received noticeable priority throughout the region. Consequently, the region has now an extensive pool of highly educated individuals, which in many instances at par with developed countries. Nevertheless, unfortunately, the region is far from achieving its research potentials because of several reasons, among them are the inadequate allocation and placement of research funds; the decoupling between research and industrial need of societies; the dependence on foreign resources to provide industrial research; the dependency on foreign turn-key systems; and the lack of confidence in domestic human skills_ Although wide spread, importing western research model for the Middle-East has failed in many instances. This is because western models are designed to fit into western society's needs, aspirations and visions. When these factors are not the same for the developing country, the research efforts are often wasted or muted_ A better model for the developing countries would be the "mission research." This is a focused research niche that positions the country globally. Mission research is by far the most successful model for many developing countries. Examples are consumer electronics in South Korea, software industry in India, computer industry in Taiwan, solid-state manufacturing in Mexico, service industry in India, food industry in Brazil and Argentina, and instrumentation industry in Indonesia. In all these examples, a national strategy with clear vision has propelled the education system as well as national resources and business community toward that central vision

ELTAYEB, Ibrahim A.

Professor of Applied Mathematics, Sultan Kabous University (Oman)

Professor Ibrahim A. Eltayeb was educated in government schools in Sudan. He was awarded a scholarship to study in the United Kingdom. He graduated with a B.Sc. (Special), First Class Honours in mathematics from the University of London in1968 and obtained his Ph.D form the University of Newcastle – Upon –Tyne in 1972. He joined the university of Khartoum as a lecturer and was promoted to professor in 1980. He was Dean of the Faculty of Mathematical Sciences (1982-1984) and in 1986 he moved to the Sultan Qaboos University where he established the department of Mathematics and Computing (1988-1998).

Professor Eltayeb has more than 50 publications in reputable journals. He was elected Fellow of the African Academy of Sciences in 1986, the Royal Astronomical Society of London in 1988 and TWAS in 1996. He was the recipient of the mathematics prize for TWAS in 1995. He was a member of the Executive Committee of the International Association of Geomagnetism and Aeronomy (IAGA) for 1991-1999 and Chairman of the Scientific Division I of IAGA on internal fields and secular variations for 1999-2003. He was a founding member of the Council of the Study of the Earth's Deep Interior (SEDI) for 1987-present and sat on the Awards Committee for Mathematics International Prize of the TWAS (1998-2006).

F

FARDOUS, Abdel Nabi. A.

General Director, The General Institute of Agriculture and Technology Transfer, National Center for Agricultural Research and Technology Transfer (NCARTT) (Jordan)

Dr. Abdel Nabi A. Fardous is the Director General of the National Center For Agricultural Research and Technology Transfer/(NCARTT).he received his BSc in 1971 from Aleppo University, Syria , MSc in Water Management in Dry Land in 1982 from University of Jordan, Jordan, and Ph D in Environmental Biophysics in 1993 from Washington State University-USA. He is a member of Agriculture Engineer Association in Jordan & was a member of the National Steering Committee for Bio safety (2003-2004). He was the Chairman for the National



Committee for Certified seeds (2000-2005). From 2000 till 2006 he was the president of AARINENA. He has been the Director General for Agricultural Research and Technology Transfer (NCARTT) since 1999 till present date. He has several publications in the field of Agriculture

FARAHAT, Mohamed

Advisory Engineer, Arab Fund for Economic and Social Development

Dr. Farahat joined the Arab Fund in 1996. He oversees electrical and communications projects financed by the Fund. This includes the review of the feasibility studies, performing project evaluation, monitoring the selection of consultants and contractors and the follow-up of projects' progress to ensure that they are completed on time and within the allotted budget.



Before joining the Fund, Dr. Farahat spent around 17 years with Westinghouse Electric Corporation in the U.S.A., Egypt, Saudi Arabia and Kuwait where he held several key management positions that included managing the Technical Training Services Department, the Power System Studies Department, the Advanced Technology Services Department and the National Accounts Department.

 $\underline{\mathbf{G}}$

GHASSIB, Humam

Head, Research department, Arab thought forum, Faculty of Science, University of Jordan (Jordan)



Born in Amman, Jordan on 27 April 1948. Educated at University of Manchester, UK, 1968-74: BSc Hons in Physics, 1971; PhD, Theoretical Physics, 1974. Director of Studies & Programs, Arab Thought Forum, and Advisor to HRH Prince El Hassan bin Talal, 1999 to date. Professor of Physics, University of Jordan, 1986 to date. Fulbright Senior Research Fellow, Cornell University, 1983-84. Chairman, Department of Physics, University of Jordan, 1986-88. Dean of Research, 1990-94. Associate, [Abdul Salam] International Centre for Theoretical Physics, Trieste, 1977-90; Editor-in-Chief: *The Cultural Journal* (Arabic), 1989-99; *Dirasat* (refereed research journal, Arabic and

English), 1990-94; *Al Muntada* (Journal of Arab Thought Forum, Arabic and English editions), 1999 to date. Awarded: Abdul Hameed Shoman Prize for Young Arab Scientists in Fundamental Sciences, Amman, 1986. Al-Hussein Order of Merit for Distinguished Contribution, Amman: 2nd order, 1998; 1st order, 2000. Member, New York Academy of Sciences, 1981; Jordan Academy of Arabic, 1984. Fellow, Third World Academy of Sciences (TWAS), 1988. Research Areas: low and ultralow temperature physics (theory); many-body theory; liquid ³He and ⁴He; ³He-⁴He mixtures; other quantum fluids; thin films and low-dimensional systems; superfluidity; physics education; history and philosophy of science; Arabic language; culture.

GOUDA, Venice

Former Egyptian Minister of State for Scientific research. Research Professor, the National Research Center (Egypt)



Dr. Venice Kamel Gouda is a Research Professor at the National Research Center. She received her B.Sc. from Ain Shams University in 1956, M.Sc. in 1959 & Ph.D. in 1962 from Cairo University and D.Sc. from Ain Shams University in 1994.

She held the post of the Egyptian Minister of State for Scientific research MSOR (October 1993-July1997). She had officially represented Egypt as head of several official delegations including Germany, USA, Pakistan, Romania in 1994 &

Switzerland, Germany in 1997.she has received many international & national awards & honors. She was Invited to deliver scientific lecturers and chairing scientific sessions in several universities and research centers in USA, England, Italy, Germany, Belgium, Canada, Pakistan, and Kuwait and to deliver general lectures to the national organizations affiliated to the United Nation.

She designed and lectured advanced training courses in the area of Corrosion, Corrosion Control and electroplating.

She has many researches & experience in the field of corrosion, corrosion inhibition, and corrosion monitoring. Have special interest and experience in corrosion of steel in concrete, stress corrosion cracking, corrosion fatigue, erosion-corrosion and diagnosis of engineering failure. she is an Author of Two patents & a book. Supervised several M.Sc theses & PhD theses in corrosion and applied inorganic chemistry. She also Worked as a scientific consultant for many industrial institutions.

She has been the organizer and the Chair of Several National Conferences dealing with important issues for Egypt .

Η

HALIM, Yehia

Head, Academic and Cultural Affairs Sector, Bibliotheca Alexandrina (Egypt)

Yehia Halim Zaky is Head of Academic and Cultural Affairs' Sector, Bibliotheca Alexandrina. He is Professor of Radiology at the Faculty of Medicine, Alexandria University, and President of the Association of the French Speaking Physicians in Alexandria. He received his doctorate in radio-diagnosis in 1974, attended the Institut Nationale des Sciences et Techniques Nucleaires, Saclay, France, and received a DEA in Science from Paris, France, in 1971. He is the former Dean of Faculty of Medicine at Alexandria University.



HAMID, Ali. M.

Chair, Department of Education and Scientific Research, Arab League (Yemen)

Dr. Hamid holds a bachelor's degree in political science from the Faculty of Economics and Political Science, Cairo University in 1970.he Joined the Ministry of Foreign Affairs of Yemen in 1970 as a supplement diplomat working in the embassies in Britain, Yemen, Ethiopia, Belgium, Czechoslovakia and Jordan. Holds a diploma from Kuwait Institute of Planning in 1972, a Diploma in diplomacy from Oxford University in 1974 and a diploma in international relations from the University of Sanaa in 1986.



Dr. Hamid was born at El-Nadra, Yemen in 1946, he is Married with a son and four daughters.

He worked in the Yemeni foreign political, economic, public relations ,consular and Cultural departments. He published Studies in "New Yemen " magazine and in "political research" magazine issued by the Ministry of Foreign Affairs of Yemen, also the Indian international affairs which is a quarterly magazine and ALEPH magazine which is issued in both English and Arabic in London on the UT Phoenix Foundation. He Participated in the Second Arab Strategic Conference held at Center for Political and Strategic Studies in El-Ahram in 1989 and Arab unity symposium in Amman in 1990. He delivered Lectures on Arab Affairs in New Delhi, London, Liverpool and Birmingham. He Wrote in several Yemeni , Jordanian and Indian newspapers, he also wrote in Al-Ahram and el Quds Al-Arabi at London. He is currently editor in the Al Hayat newspaper , he was interviewed several times by the British , American, Canadian, German and Irish media at the period from 2000 to 2005. Chaired the Arab League Mission in India from 1991 to 1995 and in London from 2000 to 2005. He received the title of ambassador in August 1991 and the ambassador's degree in January 1993

HAMZÉ, Mouïn

Secretary General, International Center for Advanced Mediteranean Agronomic Studies(CIHEAM) and President , National Council for Scientific Research (NCSR) (Lebanon)

Mouïn Hamzé was born in Beirut, Lebanon, in 1948. He received his PhD in Plant Sciences from the University of Montpellier, in 1973. Shortly after he started his academic career at the Lebanese University he moved as a Visiting Professor to the American University of Beirut. He was then appointed Dean of the School of Agricultural Sciences (1977–85) at the Lebanese University, then Secretary-General of the National Council for Scientific Research (1998). He was elected Member of the Board of Trustees of ICARDA (1990–2000), Member of the UNESCO National Commission (1990–94). He was also a Member of the Science Partnership Committee of the CGIAR (1999–2001) and Member of the Scientific Board of the "Agence Universitaire de la Francophonie" (1998–2001). In 2003, Mouïn Hamzé was elected President of CIHEAM (Le Centre International de Hautes Etudes Agronomiques Méditerranéennes— International Center for Mediterranean Agronomic Studies). Mouïn Hamzé is a recipient of a number of regional and international awards and distinctions: Abdul-Hamid Shouman Foundation Prize, for Young Researchers in the Arab World, Jordan, 1986; "Chevalier de l'Ordre du Mérite Agricole, France, 1988; and "Chevalier de l'Ordre National du Mérite", France, 1994.

HASSAN, Mohammed Prof.Dept. of Physiology Sultan Qaboos University (Oman)



-College of Medicine & Health SciencesM.B.B.S, PhD, FRCP (Glasgow)

Created a state of the art digital Clinical Physiology Department serving all of Oman in most invasive and non-invasive cardiovascular investigations, neurophysiology, autonomic function, pulmonary function and sleep medicine. Principal investigator of "Oman Family Study" which has taken long strides into the study of discrete phenotypes and genotypes of complex diseases, in large Arab pedigrees. Receiver of the Academy of Science fellowship (TWAS –2004).

Main scientific achievements are in hypertension, ambulatory B.P monitoring, baroreceptors, haemodynamics, and applications of signal processing and impedance cardiography in medicine . First to describe non-dipping B.P in type II diabetes.

HASSAN, Saad

Professor, Department of Chemistry, Faculty of Science, Ain Shams University (Egypt)

Dr. Saad Mohamed Hassan is a Professor of Chemistry at Faculty of Science Ain Shams University, Cairo, Egypt and the Head of the Reference Laboratory, at the Egyptian Environmental Affairs Agency (EEAA). He received his Ph.D in Chemistry in 1969 and D.Sc. in Chemistry/Environment in 1991 from Ain Shams University, Cairo (Egypt) He was the former Dean of Faculty of Science, Ain Shams University, Cairo, Egypt. He has been awarded several international & national awards such as the British Royal Society Chemistry Award in 1979, Golden Medal of the American Chemical Society in 1982, the Award of the Third World Academy of Sciences, Italy 1986, Decoration of Science and



Arts, First Order in 1977 and the National Recognition Award in Basic Sciences in 1999. he established the first scientific school in themicro analysis in Egypt, the Reference Laboratory for EEAA which is the first accredited lab in Egyptian Universities that is internationally recognized (received ISO 17025) at Ain Shams University. The scope of his research deals with development of chemical and biological sensors and their use in medical diagnosis, microanalysis of inorganic, organic, pharmaceutical, industrial, biochemical and environmental pollutants. More than 200 technical papers and 14 books have been published in the most prestigious international journals and publishers. He was National representative at UNEP meeting on POP's alternatives (Stockholm 1995), hazardous materials and wastes (Nerobi 1994) and hazardous waste transportation across the Mediterranean (Azmeer 1999)

HEBEISH, Ali A.

Emeritus Professor, National Research Center, Textile Research Division (Egypt)

Prof.Dr. Hebeish earned a B.Sc. in chemistry and geology in 1960, and a M.Sc. in applied chemistry in 1965. He then studied chemistry at Gujarat University, India, receiving a Ph.D. in 1968. He completed the last of his degrees, a Doctorate of Sciences, in 1983 at Cairo University. At the National Research Center, Prof. Dr. Hebeish was a research professor from 1979 to 1984. He then worked as supervisor in the office of the President of the Academy of Science Research & Technology (ASRT). He was promoted to vice president in 1988 & president in 1992. Since 1996 he has been an emeritus professor at NRC. His work deals with the chemistry of



polymers used in textiles. Prof.Dr. Hebeish 's research activities have been maintained at a high level for many years and have resulted in over 360 papers published in well known international journals , 4 books , 9 patents , 65 Ph . D. and M.Sc. theses supervised by him , and several R and D projects implemented under his direct mangement. Over the years , Prof. Dr. Hebeish has received numerous honors and awards for his work. Prof. Dr. Hebeish is a member of the Scientists Syndicate in Egypt; the African Academy of Sciences ; Third world Academy of Sciences (Italy);. He was the President of the Inter-Council for Rural Development and of the Body for the development of Sinai, both of ASRT, of the Egyptian Association for Scientific Culture , and of the Egyptian Textile society. One of the public figuers in the higher Adminstrative Court of Political Parties from 1993 to 1995, Prof. Dr. hebeish was chair of Misr Beida Dryers Company , supervisor of the National Network for Technology Development, President of the Body for the Developing Halaieb and Shalateen, and head of the Scientists Syndicate. A member of the board of the Egypatian Chemical Society and the Islamic Foundation for Science , Technology and Development, he is also on the Executive Bureaus for Technology Development and for Scientific Culture , both of the ASRT, and the Executive Bueraus of the Science and Technology committees of the NRC and ASRT. Also at ASRT , he is now a member of the Research Councilor Basic Sciences.

HELAL, Hany *Minister of Higher Education and Scientific Research (Egypt)*



Diplôme de Docteur Ingénieur, Earth Sciences (Rock Mechanics and Engineering), Ecole des Mines de Nancy, Institut National Polytechnique de Lorraine, Nancy, France, March 1982.D.E.A (Diplôme d'Edudes Approfondis), Rock Mechanics and Engineering, Ecole des Mines de Nancy, Institut National Polytechnique de Lorraine, Nancy, France, October 1979. Secretary General, Education Development Fund, Egypt, July 2005. President of «l'Université Internationale de Langue Française au Service du Développement Africain 'Université Senghor', Octobre 2004. UNESCO Consultant / Interim Administrative Director, International Centre

for Synchrotron-Light for Experimental Sciences and Applications in the Middle East (SESAME), December, 2002. National TEMPUS Coordinator (European Union Programme for Higher Education Enhancement), September 2002.

Chairman of the Associate Professors Promotion Committee for Mining, Petroleum and Metallurgical Engineering, Supreme Council of Universities, Egypt. Member of board of Directors, the Center for Documentation of Cultural and Natural Heritage, Bibliotheca Alexandria. Grade d'Officier dans l'Ordre des Palmes Académiques, Ministère de l'Education National, de l'enseignement Supérieur et de la Recherche, France, Novembre 2005. Special Prize of the Egyptian Academy for Scientific Research and Technology in the field of Management and Conservation of Historical Sites, 1993.

HERRERA- ESTRELLA, Luis

Head, National Laboratory of Genomics for Biodiversity, Center for Research and Advanced Studies, National Polytechnic Institute, Irapuato, (Mexico)



Doctor Luis Herrera-Estrella was born on June 21, 1956 in Mexico city. He graduated with a B.Sc. degree in Biochemical Engineering from the School of biological Sciences of the National Polytechnic Institute in 1978. In 1980 he received his M. Sc. from the Center for Research and Advanced Studies in Mexico city and in 1984 his Ph. D. from the State University in Ghent, Belgium.

Dr. Luis Herrera-Estrella has made important contributions to the field of plant molecular biology, especially in the study of gene regulation and in the development of gene transfer methods. While still working as a Ph. D. student he published the first report showing the successful transfer and expression of a bacterial gene in plant cells. He also pioneered the development of dominant selectable markers and the use of reporter genes for plant systems, which later became two of the most important tools to develop gene transfer systems for economically important crops.

Dr. Herrera-Estrella has published over 100 articles in peered-reviewed international journals including Nature, Science, PNAS, Cell and The plant Journal. He has been awarded several national prizes, among them the award in biology from the Mexican Academy of Sciences and the National Art and Science award from the Mexican Government. He has also been honored with international awards such as the Minuro and Ethel Tsutsui Distinguished Graduate Research Award of the New York Academy of Sciences and the Javed Husain prize for young scientists from UNESCO. Dr. Herrera-Estrella was elected in 2003 foreign member of the US National Academy of Sciences and is currently Director of the National Laboratory of Genomic for Biodiversity in Mexico.

I

IBRAHIM, Hassan

Distinguished, Tyser Teaching Fellow, Decision and Information Technologies, Robert H. Smith School of Business, University of Maryland (United states of America)

Dr. Hassan Ibrahim is "Distinguished Tyser Teaching Fellow" in Decision and Information Technologies at Robert H. Smith School of Business of the University of Maryland College Park. Dr. Ibrahim holds a Doctor of Science degree in Engineering Management from the George Washington University. Dr. Ibrahim research interest is management of technology; especially the strategic applications of enterprise resources planning. His primary teaching areas are: information systems analysis and design, data



communications, and project management. He has worked for and consulted with a number of industry leaders including McDonnell Douglas, Philips Electronics, and Siemens Medical Systems, Black and Decker, as well as the National Academies and the World Bank.

<u>J</u>

JOHL, REENA

Assistant Director - Creativity & Communications, British Council - EGYPT

Reena Johl is the Assistant Director at the British Council Egypt and is based in Cairo. The British Council is the UK's international education and cultural relations organisation. Reena has responsibility for the British Councils Science programme in Egypt and contributes to the strategy development of the British Councils science projects in the region. Reena has a BA (Hons) Politics and a Masters Degree in Culture, Race and Difference (Social and cultural anthropology).



K

KANDEIL, Abdelrazek.Y.

Assistant President for Coordinating Education and Research Affairs, and Trustee of Faculty Affairs Committee.

Prof. Dr. Abdelrazek Kandeil received his B.Sc in Production Engineering in 1971 from Alexandria University, Alexandria, Egypt, M.Sc in Mechanical Engineering in 1976 from McMaster University, Hamilton, Ontario, Canada and Ph.D in Mechanical Engineering in 1979 from Carleton University, Ottawa, Ontario, Canada. He is former Dean of Graduate Studies and Research, and Trustee of Faculty Affairs Committee 2003-2005 and former Director of Research and Faculty Affairs, Arab Academy for Science and Technology, Alexandria, Egypt.1998 2003He served as a Lecturer,



Industrial Engineering Department, College of Engineering and Technology, Arab Academy for Science and Technology, helped in establishing the curricula, laboratories of the department of industrial engineering and management, taught courses in the areas of materials science, and materials technology, statistics, manufacturing processes and manufacturing technology 1995 – 1998 , , and Guest Worker, National Aeronautical Establishment, National Research Council of Canada, Ottawa, Ontario, Canada. 1976 - 1979 . he received N.R.C. Scholarship from the Canadian Government 1976 – 1979 &. 1974 – 1975. He is a member of the American Society for metals, ASM, Metals Park, U.S.A., of the American Society of Mechanical Engineers, ASME, New York, U.S.A., of the Society of Petroleum Engineers, SPE, U.S.A., of the Egyptian Society of Mechanical Engineers, ESME, Cairo, Egypt and Former member in the Society of Die Casting Engineers, Montreal, Canada. Beside teaching, providing technical assistance to local industry and directing several laboratories, he was heavily involved in initiating and conducting several research projects which were oriented towards supporting local industry and solving industrial problems.

KANDIL, Sherif

Professor, Alexandria University and Head of Education Reform Program in Egypt (Egypt)



Dr. sherif Hussein Kandil is currently a Professor at Department of Materials Science, Institute of Graduate Studies and Research Alexandria University, Egypt, also he is Executive Director of the Education Reform Program, Academy for Education Development, Maadi, Cairo.

Dr. Sherif Kandil has a long career commitment in education planning, and education policy reforms. He obtained his B.Sc. from the Faculty of Science, Alexandria University, Alexandria, Egypt, and his Ph.D. from Lancaster University, U.K. He was involved in initiating and managing different academic

departments that introduced new disciplines to the Arab region. He is a strong advocate of science and education policy reforms. He is an active member in several national and international networks that aim at education advancement and development.Dr. Kandil is a founding member of the board of the Institute of Graduate Studies and Research of Alexandria University that was initiated by UNESCO and UNDP for the advancement of post graduate studies at Alexandria University. He also founded and headed one of the Institute's academic departments, particularly the Department of Materials Science. He co-designed and directed the Post Experience Program in Alexandria University that offered many short courses to Egyptian Industry and the Egyptian community at large. He was appointed as the Vice Dean for Graduate Studies and Research at the Institute of Graduate Studies and Research at Alexandria University, and a member of the postgraduate studies council of Alexandria university. During this period he contributed to the reforms of the bylaws and procedures of the post graduate studies within the Institute and Alexandria University. He worked as the Dean of the College of Graduate Studies at the Arabian Gulf University, Bahrain, where he introduced two academic programs on "Environmental Management" and "Distance Teaching and Training". He also led the College to adopt the Harvard critical thinking case method for teaching its academic programs. Dr. Kandil is a charter member of the executive committee of the international initiative for distance learning under the auspices of the IUCN (World Conservation Learning Network, Gland, Switzerland) and a member of the ICS UNIDO Advisory Committee for Environmentally Compatible Polymers (Trieste, Italy). Dr. Kandil co established and headed the Arab Society for Materials Science, a scientific NGO that promotes materials understanding and applications. He established and headed the series of conferences entitled "the Arab International Conference of Materials Science" that was devoted to different themes of materials applications. Dr. Kandil authored and edited more than 10 books that deal with a wide range of scientific topics. He traveled extensively around the world and delivered many key speeches in various international conferences and symposia. Dr. Kandil has obtained the Alexandria University Award for Recognition (2002), and the Alexandria University award for scientific research (and the silver medal1984) .Dr. Kandil was born in 1944, at Mansoura, Egypt, and is married to Dr. Nawal Zeyada, and has one son "Hussein".

KRIGER, Robert. S.

Head of Systems, Policy & Strategy Unit, NRF (South Africa)

Robert S. kriger received his bachelor of arts in 1972 from University of Cape Town, South Africa and his Magister Artium in Modern English Literature [major], Protestant Theology (minor), Pedagogics (minor) in 1982 from Eberhard –Karls-University, Tuebingen, Germany. He was the acting deputy director ICSU regional office for Africa (April – December 2005).

He is currently the head of Systems , Policy & strategy unit (NRF). He was the manager of International Science Liaison National Research foundation (NRF) from 1996 to 2004. He was also the director of Ethics & Policy Forum Vesper



Society , Oakland / California , United States Of America (1994-1996), was the Programme Director [Studienleiter] 'One-World' Pedagogics , Evangelische Akademie Bad Boll, Federal Republic of Germany (1989 – 1994) , and was the chair of Education Faculty, Evangelische Akademie Bad Boll, Federal Republic of Germany (1990 – 1994).

M

MADKOUR, Magdy A.

Arid Lands Agricultural Research Institute (ALARI). Professor, Faculty of Agriculture, Ain Shams University, Cairo. Board Member, Center for Special Studies and Programs, Bibliotheca Alexandrina, (Egypt)

Arid Lands Agricultural Research Institute (ALARI)

Professor at the Department of Pathology , Faculty of Agriculture, Ain Shams University, Cairo, Egypt.

Professor Magdy Madkour obtained his PhD from the University of Wales, UK, in Physiological Plant Pathology as his area of specialization. His major field of expertise is in Plant Biotechnology and Genetic Engineering. He was a Visiting Professor at Plant Growth Laboratory, Department of Agronomy and Range Science, University of California, Davis, California, USA. (1989-1990), He also



served as the Director of Agricultural Genetic Engineering Research Institute (AGERI), Agricultural Research Center (ARC0 Ministry of Agriculture & Land Reclamation (MOALR) Egypt. (1990- 2001), President of Agricultural Research Center (ARC), Giza, Egypt. (May 2003-August 2004). , supervisor of Agricultural Genetic Engineering Research Institute (AGERI). (Nov 2001-May 2003) and Assistant Director General for International Cooperation at the International Center for Agricultural Research in the Dry Areas (ICARDA) (October 2004 –October 2006). He is the Member of the American Society for Microbiology (ASM), the American Association for the Advancement of Science (AAAS) , the International Society for Molecular Plant-Microbe Interaction, (IS-MPMI), the International Society for Plant Molecular Biology (ISPMB), also a Member of the BIO (Biotechnology Industry Organization), the Egyptian Phytopathological Society (EPS) and of the Governing Board of the Egyptian Society of Applied Microbiology

He was awarded several awards such as Arab Organization for Agricultural Development (AOAD) Award for Scientific Excellence (1999),FAO world Food Day Award (2001) and two Awards from Arab Organization for Agricultural Development (AOAD) for Scientific Innovation (2003). Two patents were issued in his name in 1996 (EPO) and 1999 (USA Patent Office) for Novel Bt isolates for insect biological control. Prof. Dr. Magdy Madkour attended numerous Conferences, Symposia and International Meetings.

Authored and coauthored 137 scientific publications in International, Regional and National Journals. He Contributed chapters in 7 Text books published internationally.

MANSOUR, Ahmed

lecturer, Genetic Department, Agricultural Genetic Engineering Branch, Faculty of Agriculture, Zagazig University (Egypt)



Dr. Ahmad Mansour is a lecturer at Genetic department ,Agricultural Genetic engineering branch, Faculty of Agriculture, Zagazig University, Egypt. He received his B.Sc. in Genetics and Agricultural Genetic engineering in 1996 , M.Sc. in Molecular Genetics in 2000, and the Ph.D. 2005 in Plant Signal transduction after two years full of experimental work at Mcgill University , Montréal QC, CANADA, from Faculty of agriculture, Zagazig University, Egypt. He was a Visiting Scholar 2002- 2004 at McGill University, Department of biology, Molecular biology lab,

Montréal, CANADA.. He was Executive member in the working group of (Research and Scholastic Activities) in the Internal Quality Assurance System (IQAS) Project, Institute of efficient productivity, Zagazig University, Egypt. Project 2004-2005 & he is currently the Executive committee member in cultural affairs and scientific mission project (CASMP) for developing cultural affairs and scientific mission sectors in the Egyptian ministry of higher education (MOHE). He is also a member of The Egyptian society of Biotechnology and environmental sciences, Egypt 2006-2007, The Egyptian society of genetics, Egypt 1997-2006, The Egyptian society Experimental biology 2005-2006 and The Canadian Society of Plant Physiologists, Canada 2002-2004.

He was awarded several academic awards. He has delivered many presentations in official meetings & conferences. He has several publications .

Abstract

The Scientific research problems in Arab World: Myths and Reality

The lagging of the Scientific research in the Arab world (specially Egypt) is caused by some issues that have to be tackled and addressed properly in order to solve them. Meanwhile, opinions are mixed among the scientific community members about the real causes of these problems. Thus, the true causes of this lagging are mixed with the false ones and resulting in a lot of difficulties which hinder solving them.

After gathering a lot of information from some young Egyptian scientists about the problems they encounter in conducting their scientific research, it was clear that some of their problems are real problems that need to be addressed and fixed properly. At the same time, there are some other problems they used to claim for a long time until they believed it and became true myths. The following ten points summarized all their claims which could be described as myths or reality.

The shortage of the research facilities.

The limitation of the time dedicated for scientific research.

The lack of funding agencies.

The lack of cooperation between the scientific research and the community.

The lack of appreciation for scientific research and scientists from the community.

The broken linkage between the community problems and scientific research.

The shortage of the well equipped libraries and Academic references.

The lack of sufficient international cooperation.

The Copy-rights issues of the scientific research.

Inefficient system for the evaluation and rewarding for the distinct scientists.

After conducting some in depth studies on these claims, it seemed that both the true and false claims were mixed together resulting in a lot of confusions in the scientific community. The previously mentioned claims need to be re-evaluated and re-addressed for further analysis to extract the core problems to fix it.

MUHAMMED, Mamoun

Chair Professor and Director of Materials Chemistry Division Royal Institute of Technology (Sweden)

In 1984: D. Sc., (Docent), Royal Institute of Technology, Stockholm, Sweden ,1975: Ph. D., Royal Institute of Technology, Stockholm, Sweden ,1967: B.Sc. Chemistry, Ain-Shams University, Cairo University, Egypt ,1965: B.Sc. Soil Sciences, Ain-Shams University, Cairo University, Egypt. His current appointments are: Chair Professor, Head of Materials Chemistry Division at Royal Institute of Technology. Director International Master's Programme on Nanomaterials and Nanotechnology, KTH. Chairman, International Committee on Nanostructured Materials. Chairman, Egyptian National Committee on Advanced and New Materials. Chairman of the steering Committee for Nordic Nanotechnology Programme, Nordic Industrial foundation. Coordinator,



Arab Network on Nanotechnology. Director of the Graduate Studies, Department of Materials Science and Engineering, KTH.Member of the Board, Dept of Materials Science and Engineering, KTH ,Dr. Muhammed has been a visiting professor in Spain, Italy, Korea, Albania, China, USA and Egypt, and he is active in several national and international organisations. Has been with the Royal Institute of Technology since 1969 at different positions, and has been serving on several committees (commissions of trust) at this university. Has been a member of several national and international committees for evaluation and accreditation of universities, expert panels for program evaluations, etc.

His **Entrepreneurial includes:** Has more than 20 patents and patent applications; several of them have been filed at different European countries and USA. Has developed three processes which have been evaluated in a scaled up pilot testing. Established SME NanoChem Technologies, a co-founder of Nano Biomedical Technology AB, and European Chemical Nanotechnology AB, for the industrial exploitation of the research results on Nanomaterials in medical and other industrial applications. Has acted as a consultant for several European and USA companies.

Abstract

Concerted Efforts: The Establishment of Thematic Centers of Excellence

It is now abundantly clear that sustainable economical development is dependant on knowledge based society. The past few decades have witnessed an unprecedented advancement of scientific research and technological development. There never have been so many researchers as now and there exists extremely sophisticated instrumentation and facilities needed for high end research and development. Costs for research have also increased dramatically. For the Arab countries, there is a need for developing national priorities to be integrated regionally. Building an infrastructure for research and technology development is not only very costly but also requires long term planning and good governance. For a long term strategy, elite educational institutions should be established for supplying future R&D scientists and engineers. Such institutions exist in developed countries, e.g., MIT, CATECH, etc, and have proven to be very important for developing economies, e.g. Indian Institutes of Sciences and Indian Institutes of Technologies. For shorter term strategy, world-class "specialized" Centers of Excellence should be established. These are research based institutions, can be established in two forms. "Centers without walls" can be formed through effective networking existing research centers or groups. The second type is physical Centers of Excellence where recourses and researchers would be located in the same facility. In both cases, clear mission statements, goals and roadmap should be established and implemented. A strong association with world-leading institutions working in the same areas should be secured.

$\underline{\mathbf{N}}$

NAGI, Magdy Head, Information & Communication Technology Sector, Bibliotheca Alexandrina (Egypt)



Dr. Nagi is a Professor in the Computer Science department, Faculty of Engineering, Alexandria University. He obtained his Ph.D. from the University of Karlsruhe, in 1974, where he served as Lecturer for two years and as a Consultant to its Computer Center from 1974-1990. During this period he also served as Consultant to many companies in Germany such as Dr. Otker, Bayer, SYDAT AG, and BEC.

On the national level he was a Consultant to many projects under the umbrella of either the University of Alexandria or the Faculty of Engineering for designing and/or implementing automation projects for governmental

authorities or public sector companies, such as the Ministry of Interior, the Health Insurance Organization (HIO), the Social Insurance Organization (SIO), and the Customs Authorities.

Since 1995, Dr. Nagi has served as Consultant to Bibliotheca Alexandrina. Among his activities are the design and installation of Bibliotheca Alexandrina's network and its information system as well as the design and implementation of the library information system, namely a trilingual information system that offers full library automation. He is currently serving as the Head of the Information and Communication Technology (ICT) Sector at Bibliotheca Alexandrina.

Dr. Nagi is a member of the ACM and the IEEE Computer Society as well as several other scientific organizations. His main research interests are in operating systems and database systems. He is author/co-author of more than 80 papers.

NAKHLA, Rafik

Director, Human Resources Department, Bibliotheca Alexandrina and Lecturer, AUC, AAST (Egypt)



Rafik Nakhla a graduate pharmacist. He holds a Master degree in Quality Management from the University of Wolverhampton, (U.K.) After five years of training and sales experience in the Pharmaceutical industry, he became a lecturer in Sales and Marketing with the AUC and a visiting lecturer with the AAGSB. He is also a Management Consultant.In October 2002 he joined Bibliotheca Alexandrina (BA) as the Training and Human Resources Consultant; he is currently the Director of Personnel.

He contributed to several international conferences in BA; Biotechnology voices of the north and the south in 2002, Ethical and social responsibility of science and technology 2002, Teaching math and science in the 21st century 2003 and Biovisionalexandria2004. He participated in the pre conference workshop of the Arab Reform Forum and the Education Reform Forum. He is a member of the 2005 Board of Examiners of the National Award for Excellence Some Publications:

Nakhla, R. (2004) Biotechnology a Controversial Technology. Alexandria: Bibliotheca Alexandrina. Nakhla, R. (2003) Biology Curriculum in Secondary Schools in Egypt. Alexandria: Bibliotheca Alexandrina.

El Tayeb, M., El Mofty, M., Eid, M., Refai, A., Abdo, A., Nakhla, R. (2005) Reform issues in Continuous Education and vocational development. Alexandria: Bibliotheca Alexandrina. Education Reform

Schneider, C., Nakhla, R., Soliman, S., Erbisch, F. (2004) An overview of Biovision Alexandria 2004. Alexandria: Bibliotheca Alexandrina/The Doyle Foundation.

Q

QUÉRÉ, Yves

Co-Chairman, InterAcademy Panel on International Issues, France

As a Solid-State physicist, Yves Quéré specialized in crystal defects of solids, including radiation effects in solids and the interaction of heavy particles with crystals where he discovered the effect of dechanneling of particles by lattice defects. Having started his career at the French Atomic Energy Commisssion (CEA, Saclay), he moved to *Ecole Polytechnique* (Paris-Palaiseau) where he was elected Professor of Physics, President of the Department of Physics and President of the Senate of Professors. A member of the *Académie des sciences* since 1991, he has been for 10 years its Foreign Secretary, and was elected, in year 2000, co-Chair of the *InterAcademy panel* (IAP), the assembly of science Academies worldwide. In 1996, YQ joined Georges Charpak, Nobel Prize winner, and Pierre Léna to launch *La main à la pâte*, a renovation of science teaching in French schools, actively endorsed by the *Académie*. In the meantime, he proposed the IAP to include *Science education of children* among its scientific programme, provoking an implication of quite a number of science Academies in the field of children's Inquiry Based Education. YQ wrote several books, including *Physics of materials*, Gordon and Breach, 1998; *La science institutrice*, Odile Jacob, 2002; *La sagesse du physicien*, L'oeil neuf, 2005; and – cosigned with Georges Charpak and Pierre Léna – *L'enfant et la science*, Odile Jacob, 2005 (also published in Spanish).

Abstract

Developing the capacities of Academies of Sciences

Y. Quéré ,IAP co-Chair The Academies of sciences have an essential role to play for the development of Science and Technology worlwide. This is true, in particular, in the Arab World. The importance of the Academies proceeds from their triple character: 1/ they are prestigious, due to the scientific *excellence* which they reveal in a country; 2/ they have (or should have), from history, a complete *independence* vis à vis the various powers (political, economical, religious...) in presence; 3/ they enjoy a *stability*, in time, which most institutions (parliaments, boards of directors...)

do not have. An increasing international networking of Academies still reinforces their potential power. It is to be hoped that they play fully the role in question, overcoming their frequent timidity and lack of self-confidence. Cases will be presented where Academies of sciences have had a definite influence on the scientific policy or on the development of human resources of their country.

R

RAFEA, Ahmed

Professor of Artificial Intelligence and Expert Systems, AUC (Egypt)



Dr. Ahmed Rafea got his Ph.D. from University Paul Sabatier, Toulouse, France and currently is a Computer Science Professor at the American University in Cairo. Dr. Rafea served as the Chair of CS Dept. and Vice Dean at the Faculty of Computers and Information, Cairo University. He also served as a Visiting Professor in San Diego State University, and National University in the United States. Dr. Rafea was the principal investigator and manger of several projects for developing Intelligent Systems and Machine Translation in collaboration with European and American

Universities. He is currently a member in the Center of Excellence on Data Mining and Computer Modeling, sponsored by the Ministry of Communication and Information Technology. Dr Rafea authored over 130 scientific papers in International and National Journals and Conference Proceedings. His research interests include Natural Language Processing, Machine Translation, Knowledge Engineering, Knowledge Discovery, and Data Mining.

<u>S</u>

SALEH, Fathi *Director, Cultnat, Bibliotheca Alexandrina (Egypt)*



Dr. Fathi Saleh is currently a professor of Computer Engineering at Cairo University. In the mean time, he is the Director of the "Center for Documentation of Cultural and Natural Heritage", which is affiliated to Bibliotheca Alexandrina and supported by Ministry of Communications and Information Technology. He is a member of the Supreme Council of Culture and also the president of the Association for the documentation, preservation and valorization of Euro-Mediterranean Cultural Heritage "Herimed". During the years 1995-97 he occupied the position of Cultural

Councilor at the Embassy of Egypt in Paris; and from 1997-1999, he was the Ambassador of Egypt to the UNESCO. Dr. Saleh graduated from the Faculty of Engineering - Cairo University and attained his PhD from the University of Paris – France. His main interest is the application of the new technologies in the different fields of Cultural and Natural Heritage.

SERAGELDIN, Ismail

Director ,Bibliotheca Alexandrina (Egypt)



Ismail Serageldin, Director, Library of Alexandria, also chairs the Boards of Directors for each of the BA's affiliated research institutes and museums and is Distinguished Professor at Wageningen University in the Netherlands. He serves as Chair and Member of a number of advisory committees for academic, research, scientific and international institutions and civil society efforts which includes the Institut d'Egypte (Egyptian Academy of Science), TWAS (Third World Academy of Sciences), the Indian National Academy of Agricultural Sciences and the European Academy of Sciences and Arts. He is former Chairman, Consultative Group on International

Agricultural Research (CGIAR, 1994-2000), Founder and former Chairman, the Global Water Partnership (GWP, 1996-2000) and the Consultative Group to Assist the Poorest (CGAP), a microfinance program (1995-2000). Serageldin has also served in a number of capacities at the World Bank, including as Vice President for Environmentally and Socially Sustainable Development (1992-1998), and for Special Programs (1998-2000). He has published over 50 books and monographs and over 200 papers on a variety of topics including biotechnology, rural development, sustainability, and the value of science to society. He holds a Bachelor of Science degree in engineering from Cairo University and Masters' degree and a PhD from Harvard University and has received 18 honorary doctorates.

SHIHAB-ELDIN, Adnan

Former Acting Secretary General of the Organization of Petroleum Exporting Countries (OPEC) (Austria)

Dr Shihab-Eldin, a physicist and engineer by training with working experience in a number of diverse fields, currently serves as senior advisor and consultant to a number of public and private institutions, organizations and companies. In 2005 he served as the Acting Secretary General of the Organization of Petroleum Exporting Countries (OPEC) where he also served as Director of Research, from August 2001 through March 2006. From March 1999 to August 2001 he served as Director of the Division for Africa, East Asia and the Pacific, Department of Technical Co-operation, at the International Atomic Energy Agency (IAEA) in Vienna, Austria. Prior to



joining the IAEA, from December 1991 to February 1999, he served as Director of the UNESCO Regional Office for Science and Technology (Cairo) and as the UNESCO Representative in Egypt, Sudan, and Yemen.

.He received a B.Sc. degree in Electrical Engineering in 1965, a M.Sc. degree in 1967, and Doctorate degree (Ph.D.) in Nuclear Engineering in 1970, all from the University of California at Berkeley, USA. Prior to his career with international organizations, Dr Shihab-Eldin taught, lectured on, and directed research in, the physical and engineering sciences, as well as the applied fields of energy economics, technology and the environment, at a number of universities and research centers in Kuwait, the United States and Europe. He joined Kuwait University Faculty in 1970 and served as Vice Rector for Academic Affairs at the University from 1976 to 1980 and was the Director General of the Kuwait Institute for Scientific Research from 1976 to 1986. He also worked from 1971 through 1975 as a Research Physicist and later, from 1987 to 1991, as a Visiting Research Scientist at the Lawrence Berkeley National Laboratory, University of California, and was also frequently a visiting scholar at the European Nuclear Research Center in Geneva, Switzerland, and at the Energy and Environment Policy Center at Harvard University in Cambridge, Massachusetts, USA.

Dr Shihab-Eldin is a member of many national, regional, and international professional societies; he also serves, and has served, as a member of the Board of Directors of more than 30 companies, foundations, and advisory committees. He has published more than 150 scientific papers, articles and reports, and co-authored five books, as well as having delivered numerous lectures and invited talks at international and regional meetings, in the areas of Energy Economics; Oil Markets; Policies, Technologies and Environmental Aspects of Energy Systems; Nuclear Pysics and Engineering; Policy, Management and Development of Science & Technology in Developing Countries; Higher Education Systems, and other related fields.

Abstract

Comments on a Number of Successful Institutions in Developing Countries

In seeking common denominators or factors for what makes World-Class Research Institutes, this presentation will describe a number of institutes, academic and non-academic research centers in what is considered to be the Developing World. These institutions are recognized in their respective countries, and in many cases in the Western World, as outstanding research institutions. Attempts are made to highlight what makes each of these institutions

what it is, and to draw some conclusions on what may be selected in seeking to build new centers in Arab countries.

SHINAISHIN, Osman

Senior Program Manager, Office of International Science & Engineering, National Science Foundation, (Egypt)



is Senior Program Manager, for North Africa, Near East and South Asian the Office of International Science and Engineering at the US National Science Foundation. He was born in Egypt, graduated with a B.Sc. in Agricultural Sciences from Cairo University in 1952, received a M.S. degree in Agricultural Engineering from Michigan State University in 1960, and a Ph.D. in Mechanical Engineering from the University of California, Davis and Berkeley in 1965. He held positions at NSF since 1976 managing programs with India and South Asia and then with the North Africa, Near

East and South Asia. Prior to that he was Program Manager, Acoustics Unit at Mechanical Technology Inc. Albany, NY, and Program Coordinator, Research & Development Directorate, Environmental Protection Agency. Earlier he worked as a Research Acoustics Engineer at the General Electric Company R&D Center in New York and at the Boeing Company in Seattle, Washington. He has also taught at Egyptian Schools before going to the U.S.

Much of his publications is on dynamics, acoustics, and since joining the NSF on the status of scientific research in the developing world.

Osman Shinaishin

SHOLKAMY, Hania

Research Professor, The Social Research Center, The American University in Cairo (Egypt)

Hania Sholkamy is an Egyptian anthropologist with a PhD from the London School of Economics and Political Sciences, The University of London. She obtained her BA and MA from the American University in Cairo (AUC). She is currently assistant professor at the Social Research Center of the AUC and is also affiliated with the Forced Migration and Refugee Studies Program of the university. Prior to her current position she has held positions with the department of anthropology of the AUC, has been a Research Associate at the International Population Council and was the Ioma Evans Pritchard Junior Research Fellow at St. Anne's College, Oxford University. Her research interests and publications are mainly in the fields of health, particularly reproductive health, gender, population and qualitative methods. She has co-edited two volumes, one titled Categories and Contexts: Anthropological and Historical Studies in Critical Demography (OUP) with S. Szreter and A. Dharmalingam and another titled Health and Identity in Egypt (AUC press) with F. Ghanam.

She has been a member of various professional associations including The Reproductive Health Working Group (current), the Committee on Anthropology and Demography of the International Union for the Scientific Study of Population (1998-2002) and the Advisory Committee of the Middle East Awards program of the International Population Council (2002/3). She is also a member of the executive committee of the Institute for Gender and Women's Studies of the AUC, A fellow of the Economic Research Forum, and a member of the International Faculty of the Arab Gulf University in Bahrain.

SOLIMAN, Salah

Special Advisor, Bibliotheca Alexandrina. Professor of Pesticides, Faculty of Agriculture, Alexandria University. Board Member, Center for Special Studies and Programs, Bibliotheca Alexandrina (Egypt)

Salah Ahmed Soliman, Professor of Pesticide Chemistry and Toxicology, Faculty of Agriculture, Alexandria University (1986–present). Visiting Scientist, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, USA (1979–82). Visiting Professor, University of Texas Medical Branch, (UTMB), Galveston, Texas, USA (1987–88). Visiting Professor, King Saud University, Saudi Arabia (1988–94). Member, Final Review Boards (FRBs), International Program on Chemical Safety (IPCS), World Health Organization (WHO) since 1992. Member, Joint Meeting on Pesticide Residues, WHO/FAO JMPR, since



1999. Vice-Chairman, Steering Group on Risk Assessment (IPCS/SGRA, WHO), 1999–present. Has more than 70 scientific papers in areas of neurotoxicity, pesticides and heavy metals monitoring and mode of actions published mostly in international journals. Constructed a number of Research Laboratories at the Department of Pesticide Chemistry and Toxicology, Alex University through research projects funded by USEPA and other US and UN organizations. Member , US Society of Toxicology; Society of Environmental Chemistry and Toxicology; Weed Science Society of America; and Egyptian Society of Toxicology. Rewarded the National Award on Agricultural Sciences, 1980 and offered the First Level Medallion of Science and Art by Decree of the President of Egypt, 1981.

<u>T</u>

TOLBA, Mostafa

Emeritus Professor, Faculty of Science, Cairo University (Egypt)

Prof . Dr. Mostafa Tolba got his PhD. in Microbiology from Imperial College, London, England & currently is an Emeritus Professor at Faculty of Science, Cairo University. He also served as Executive Director & Deputy Executive Director of the United Nations Environment Program (UNEP). He also served as Minster of Youth , Under Secretary of State at Ministry of higher Education & Cultural Counselor and Director of Egyptian Education Bureau, Egyptian Embassy,



Washington, D.C. He is currently the President of the International Center for Environment and Development (ICED), Chairman of Environmental Management Egypt (EEMAN) & of Egyptian Society for Consumer Protection. He is president of ECOPAST - Center for Environment and Our Common Past, Washington, D.C. He is a member of the Advisory Councils to the President of Egypt for Economic Development and for Education & Scientific Research, of the Board of Directors - Egyptian Environmental Affairs Agency, of the World Resources Institute , Board of Directors, Washington, D.C., of the International Academy of the Environment , Board of Directors, Geneva, Switzerland, of Tylor Ecology Award Selection Committee (USA) & Council Member of the World Innovation Foundation (UK). Honorary Member of the "Earth 90" Executive Board, Tokyo, Japan.

Prof. Dr. Mostafa Tolba authored over 95 scientific papers published in national, European and American scientific journals & has more than 700 statements and articles on the environment. He issued many books. He was the editor of several volumes of many scientific Encyclopedia .He received many honors & prizes such as Honorary Doctorate of Law, Williams College, USA, 1990, Honorary Professorship, Beijing University, China, 1987, Honorary Doctorate of Science, Gembloux, Belgium, 1985, Global Environment Leadership Award, Global Environmental Facility (GEF), 2003, Global Environmental Award, International association For Impact Assessment (IAIA), 2003, Award for Outstanding Contribution to the Protection of the Ozone Layer (UNEP), 2000 & Award of the Ministery of State for Scientific Research, 2000,2001,2002,2003.

$\underline{\mathbf{W}}$

WASTAWY, Sohair F.

Chief Librarian, Bibliotheca Alexandrina (Egypt)



Dr. Sohair F. Wastawy is Chief Librarian at Bibliotheca Alexandrina, Alexandria, Egypt. Dr. Wastawy received her BA, MA, and completed work towards her Ph.D. thesis in Linguistics at Cairo University, Egypt. She possesses a Master's degree in Library and Information Science from The Catholic University of America, Washington DC, USA and a Doctorate degree in Library and Information Management from Simmons College, Massachusetts, USA.

Dr. Wastawy has been a practitioner in the information field since 1975 and practiced librarianship in a number of countries that include Egypt, Saudi Arabia, and the USA. She began her library career at Cairo University Library, taught librarianship in the first women's library program in Saudi Arabia and was the Dean of Libraries at Illinois Institute of Technology in Chicago from 1988 until 2004. Dr. Wastawy was appointed in July 2004 as the first Chief Librarian for the new Library of Alexandria, Alexandria, Egypt.

In addition to her leadership role and managerial responsibilities, Dr. Wastawy is often a consultant to the non-for-profit organizations, corporations, and accreditation commissions. Dr. Wastawy has been the recipient of many awards, a Peace Fellowship and a Fulbright Scholarship and has written and spoke extensively on multiple library issues.

<u>Y</u>

YANG, Huan ming

Institute of Genetics, Chinese Academy of Sciences, China

Abstract

Creating World-Class Research Institutions in the Developing Countries

The completion of Human Genome Project (HGP) has brought life sciences into the genomic era by providing an extraordinary trove of information about life and ourselves as well as powerful tools applicable to biotech/bioindustry/bioeconomy. The HGP Spirit, i.e. "owned by all, done by all, (freely) shared by all" has placed all the countries at the similar starting point to develop their biotech/bioindustry/bioeconomy. Acknowledging the importance of genomics in response to the serious challenges in environment, energy, food, health and others, China has become one of the "leading genomics nation(s)" (J. Watson, 2003)

beginning by its participation in the HGP. China has also contributed significantly to the International HapMap Project, as well as the rice, chicken, silkworm and other important genomes of scientific, economical, and ecological significance. Beijing Genomics Institute (BGI) has become one of the world-class research institutions in genomics. The rapid development of genomics has greatly contributed to China's life sciences and bioeconomy.

YOUSEF, Mohsen



Director, Dialogue forum, Bibliotheca Alexandrina (Egypt)

Senior Advisor for Special Projects, Director of the Dialogue Forum and General Secretary of the Arab Reform Forum, Bibliotheca Alexandrina

Currently, supervising the Dialogue Forum activities, Arab Reform forum and Arab Reform conferences including youth employment summit, the role of youth in reform and modernization, Freedom of Expression and good governance democracy, among

others. Previously, was an Education and Human Resources Specialist at the World Bank and UNESCO. His professional career includes expert work in the fields of media and microfinance projects to help the poor and fight poverty, especially women. He conducted several research studies on community development, labor migration, youth employment, microfinance, education, partnership, and information and labor markets.

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Partners



Arab Fund for Economics and Social Development

The Arab Fund for Economic and Social Development (AFESD) is an autonomous regional Pan-Arab development finance organization, ("the Fund"). Its membership consists of all states who are members of the League of Arab States. The AFESD is an Arab regional financial institution, having an independent juridical personality. Its function is to assist the economic and social development of Arab countries through (1) financing development projects, with preference given to overall Arab development and to joint Arab projects; (2) encouraging the investment of private and public funds in Arab projects; and (3) providing technical assistance services for Arab economic and social development. The AFESD also provides secretariat services for the Coordination Secretariat of Arab National and Regional Development Institutions, which meets periodically to discuss ongoing and planned development projects with the intention of streamlining operational procedures among the member institutions. Members of the coordination group are the Abu Dhabi Fund for Development, the Arab Bank for Economic Development in Africa, the AFESD itself, the Islamic Development Bank, the Kuwait Fund for Arab Economic Development, the OPEC Fund for International Development, and the Saudi Fund for Development. The Coordination Secretariat publishes, twice per year, a Summary of Loans and Technical Assistance Extended to Developing Countries by Arab National and Regional Development Institutions

Website: www.arabfund.org



Bibliotheca Alexandrina

The Bibliotheca Alexandrina (BA) , a vast cultural complex rising from the shores of the Mediterranean and only a stone's throw from the location of the ancient library of Alexandria, is a new Egyptian enterprise of international scope and ambition. Built on the location of the Ancient Library of Alexandria with the support of UNESCO and foreign donations, the Bibliotheca Alexandrina was inaugurated in October 2002. It is an integrated cultural complex containing a library (with space for eight million books), an Internet Centre, six specialized libraries (audio-visual materials, microforms, rare books and special collection, for children, for the young and for the visually impaired), three museums (antiquities, manuscripts and history of science), a planetarium, an exhibition centre (with two permanent exhibitions), six art galleries, seven research institutes and a conference centre.

Bibliotheca Alexandrina welcomes more than 900,000 visitors a year. A tour of the library is foreseen for the IAU Conference participants.

Website: www.bibalex.org

General Information for Participants at the conference

Registration and Information Desk

Upon arrival, The registration desk will be located at the Conference hotel: 13th of November,2006. *During the conference*, the registration desk will be located at the Bibliotheca Alexandrina Conference Center (BACC),The Registration Desk will also serve as the Information Desk and will be open from Tuesday 14 November 8:30 a.m.

Please wear your badge at all times.

Conference Hotel

This hotel is located within Montazah Gardens, commonly known as Montazah Palace. It is about a 25 minute drive to the downtown . The area is one of the most affluent parts of the city and the hotel was originally built to accommodate the kings and presidents of all the Arab countries for the Arab Summit Meeting.

Helnan Palestine

Montazah Garden, Alexandria

Phone: + (203) 5474365 + (203) 5474 500 Fax : + (203) 5474768

Transportation

Transportation from the Conference hotel to Bibliotheca Alexandrina and the social events will be offered by bus. Schedules will be available in the hotel lobby and at Information Desk in the Bibliotheca Alexandrina.

Working Languages

The working languages the sessions will be Arabic and English. Simultaneous interpretation will be provided at all Plenary Sessions and in some of the Working Groups.

Internet Café

An Internet Café is available for participants at the conference site, M Level, BACC.

Social events

The organizing committee is combining its efforts to ensure that all participants get proper introduction for Bibliotheca Alexandrina, network and enjoy their stay in Alexandria. A number of receptions and social events are planned. Please, see the Conference Program as well as more detailed information, which will be available on Information Desk. No special programs are arranged for accompanying persons.

General Information on Alexandria

Alexandria

Alexandria was founded by Alexander the Great in 331 B.C. Famous for its lighthouse, symbolof the University of Alexandria, it was at the time of the Ptolemaists the artistic and literary centre of the East and one of the main focuses of Hellenistic culture. Modern Alexandria is an important commercial, industrial and intellectual centre for North Africa and the Arab world. Its unique location, facing the Mediterranean, its beautiful harbour, long Corniche lined with sandy beaches, makes it the most famous summer resort in Egypt. Fascinating excursions up the Nile await those who can spend more time in Egypt.

Currency

Money can be changed at the airport and at the railway station. Many ATMs are available to withdraw cash, throughout the city centre.

The monetary unit of Egypt is the Egyptian Pound (EGP), which is divided into 100 Piasters. All Egyptian banks change foreign currency on weekdays during official banking hours. The approximate rate of exchange is at present US \$1 = 5.73 EGP and Euro 1 = 7.37 EGP (as of November 2006)

For exchange rates: www.cbe.org.eg

Credit Cards

Most major international credit cards are widely accepted by hotels, shops and restaurants. Visa and MasterCard are the most widely used. American Express is also accepted in many places.

Time Difference

In November, during the Meeting and Conference, the local time will be GMT + 2.

Electricity

The electric current is 220V, 50 cycles. Most hotels also provide 110V outlets for shavers.

Telephone

International code for Egypt: 0020 For Cairo: 00202 For Alexandria: 00203

Both fixed and mobile phones can be used.

Mobile networks: Vodafone and Mobinil networks

Fixed phone: Phone booths can easily be found all over the city. Telephone cards are sold

everywhere.

Important telephone numbers

Ambulance:123 Police:122 Phone index: 140

Temperatures (°C)

In November the minimum temperature expected is 12.5 degrees Celsius and the maximum temperature expected is 23.2 degrees Celsius. It may rain in November in Alexandria.



Bibliotheca Alexandrina P.O. Box 138 - El Shatby, Alexandria 21526, Egypt Tel.: +(203) 48 39 999 Fax.: +(203) 48 20 469

Website: <u>www.bibalex.org</u> General E-mail: <u>secretariat@bibalex.org</u>