BioVisionAlexandria 2008

Alexandria, Egypt
From Promises to Practice

12-15 April 2008

Colors of BioVisionAlexandria 2006

BIBLIOTHECA ALEXANDRINA
مكتبة الإسكندرية

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This publication is dedicated to a proficient colleague, yet a dear and valued friend, Ahmed Roushdy who was a paradigm of professionalism and a pleasant co-worker.

The assortment of fine captures included in this publication is but a simple demonstration of his constant dedication to innovation and perfection, which adds to the rich photo gallery of all the Bibliotheca Alexandrina's events and occasions.

Ahmed, your soul has left our world, but your reflections on each and everyone of us shall never disappear.

Preface

With the realization of the pivotal role that biotechnology and life sciences now plays, it is necessary that science advancement is placed with high priority on all agendas of the developing world.

Many challenges are now facing the 21st century, for that, it is important that scientists and key players in human development work incessantly on the promotion of dynamic exchange of biotechnology information and new perceptions as well as encourage innovation and development. In addition, the provision of constructive dialogue will inevitably change nations' lives for the better and compromise a unique opportunity for the developing world to stir forward.

Following the success of BioVisionAlexandria 2004, the Bibliotheca Alexandrina hosted its second BioVisionAlexandria conference that took place 26 - 29 April 2006, which was considered a continuation to "BioVision: World Life Sciences Forum" tradition that started in 1999 in Lyon and has alternated every other year with BioVisionAlexandria conference starting 2004.

BioVisionAlexandria 2006 conference entitled "New Life Sciences: Changing Lives" shed light on various themes concerning the advancement of sciences in the health and the medicinal fields as well as the scientific concerns of agriculture, environmental conservation and green biotechnology.

The conference brought together a number of eminent speakers, Nobel Laureates and Ministers of Health and Agriculture. Moreover, it included many experts of highest caliber in different scientific fields from the four corners of the globe honoring science and the premium accomplishments of the human intellect.

This offered an exceptional opportunity for the global community to exchange ideas and to build up a common vision for an enhanced future for the sick and the poor.

The BioVisionAlexandria 2006 conference commenced with a "BioVision Nobel Laureates Day" which was dedicated as a tribute to the Nobel Laureates whose vision, devotion and perseverance for scientific innovation has made great impact on our lives and has changed our world significantly.

The conference also featured two simultaneous tracks that shed light on Diabetes and Drought.

The Diabetes track was devoted to discuss issues related to diabetes especially in the low and middle income countries. It discussed the effects of diabetes on personal and public health, as well as the social and economic burdens it creates. The track also addressed solutions to the problem that mainly involved researches aiming at the prediction, early diagnosis, prevention and cure of diabetes and its complications.

On the other hand, the Drought tracks served as pre-conference for the BioVision conference in Lyon, March 2007. It shed light on the innovation and development plan in the field of agricultural research systems in both private and public sectors.

As an exclusive feature of the BioVisionAlexandria 2006 conference, a special exhibition was held entitled BioF air@BioVisionAlexandria 2006 and was intended to display scientific resources and material for publishers, associations and industrial companies engaged in the field of life sciences including pharmaceutical, medical, environmental, agricultural, nutritional and engineering fields.

Furthermore, the BioVisionAlexandria 2006 conference also featured a Poster Session through which scientists and young masters attained the opportunity to present their work in a surrounding broad with science and expertise.

This publication aims to present an overview of the BioVisionAlexandria 2006 conference and announces the next BioVisionAlexandria 2008 conference.

For further information, please visit the BioVisionAlexandria website at: *www.bibalex.org/biovisionalexandria*

The Colors of BioVision Alexandria 2006

New Life Sciences: Changing Lives

Organized in Partnership with The World Life Sciences Forum BioVision

26 – 29 April 2006

at

Bibliotheca Alexandrina (BA)

Alexandria, Egypt

Wednesday, 26 April 2006

OPENING ADDRESSES

Aiming to share their views on the importance of Life Sciences in today's changing world, eminent international leaders from political, social and scientific fields, inaugurated the BioVisionAlexandria 2006 conference with high expectations and optimism.

(In order of presentation)

Philippe Desmarescaux, Chairman, The World Life Sciences Forum, BioVision **(France)**

Koji Omi, Former Japanese Minister of State for Science and Technology Policy **(Japan)**

Elias Zerhouni, Director, National Institutes of Health **(USA)**

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

Ibrahim Badran, Former Minister of Health **(Egypt)**

Mohamed Hassan, Executive Director TWAS **(Italy)**

Janez Potocnik, European Commissioner for Science and Research, European Commission (Video Presentation)

Ismail Serageldin, Director of Bibliotheca Alexandrina **(Egypt)**

"Life Sciences will contribute greatly to improve our personal safety and security which will become a priority for all of us when offering new and efficient ways for controlling investigation and protection..."

Philippe Desmarescaux

"Our researches should be directed towards system biology which tries to put together scientific knowledge about each molecule to understand the complex mechanism of life..."

Koji Omi

"Acceleration of discoveries is going to be imperative in the next 30 years and in order to accelerate those discoveries, it is important to build a connected scientific infrastructure and find ways to increase the knowledge per capita, increase the amount of information transferred and increase the amount of economic connectivity..."

Elias Zerhouni

Hany Helal

"BioVision is one of the unique opportunities that opens interactions between people from both developing and developed nations in discussions commemorating science and fine achievements of human intellect..."

Ibrahim Badran

"We hope that life sciences will be able to save humanity in this very rapidly changing world..."

Mohammed Hassan

"This biennial event reflects a welcomed trend towards North-South cooperation in the life sciences. BioVision is also a global partnership that promises to provide substantial benefits to our increasingly global society ..."

Janez Potocnik

"Modern life sciences and biotechnology have been recognized as the next wave of potential engines for economic development in industrialized and emerging countries. The European Union is committed to substantially contribute to the global fights against hunger, diseases and extreme poverty which are increasingly affecting larger parts of the world population..."

“Our forum is a celebration of new biology, but it is also a celebration of science, all it stands for and all it can do, as well as the inspiration that it brings to all of us, but above all, it specially emphasizes on science and the values of science...”

Ismail Serageldin

BioVisionAlexandria2006, Nobel Laureates Day

Session 1: On the Quality of Science

Chair: Francois Gros, General Secretary, Academy of Sciences **(France)**

Rapporteur: Pierre Anhoury, IMS Health, Management Consulting **(France)**

Erling Norrby, Former Secretary General of the Royal Swedish Academy of Sciences **(Sweden)**

More than 100 Years of Nobel Prizes

Georges Charpak, Physics 1992 **(France)**

Supramolecular Chemistry: Some Contributions to Life Sciences

"The ethical dimension of sciences that extends scientific progress impacts our way of life and is compatible with the human dignity, with respect to the environment and to the universality of science..."

Francois Gros

"It has been truly marked that the amazing advance of science during the 20th century got large, however yet expected to continue in the 21st century ..."

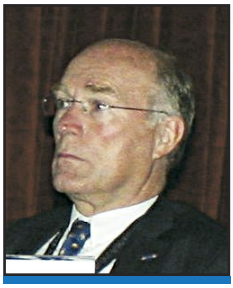
Erling Norrby

"...there is a development of science which you do not master at all and you continue to leave it exactly like what your ancestors in the stone age have left..."

Georges Charpak

Session 2: Science for Humanity

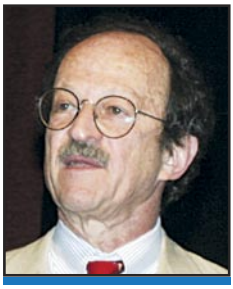
Chair: Roelof Rabbinge, InterAcademy Council (IAC) Study, Food for Africa **(Netherlands)**
Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**
Harold Varmus, Medicine 1989 **(USA)**
Peter Doherty, Medicine 1996 **(Australia)**



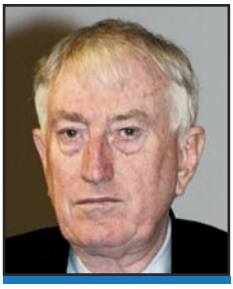
"Science is threatened by the so-called "Closed Knowledge System" where protection is made by property rights but also through publishers..."

Roelof Rabbinge

"...we can transform science through quality-building by mingling people who have vast scientific experience with those who are just learning science. We propose goals that focus on scientific community and on high minded objectives where we share our results much more freely unlike we had in the past..."



Harold Varmus



"...there are logistic and strategic problems with influenza that are not really scientific while with HIV, we have a totally different problem; we get a good drug treatment schedule that works with the developed world and prevent people from contracting the disease by modifying behavior, but we all know that changing behavior can be an enormously difficult challenge..."

Peter Doherty

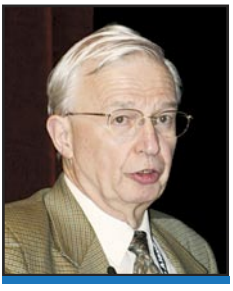
Session 3: Technology of Hope

Chair: Margaret Catley-Carlson, Chair, Global Water Partnership **(USA)**
Rapporteur: Pierre Anhoury, IMS Health, Management Consulting **(France)**
Jean-Marie Lehn, Chemistry 1987 **(France)**
Stanley B. Prusiner, Medicine 1997 **(USA)**

Pierre Anhoury
Rapporteur

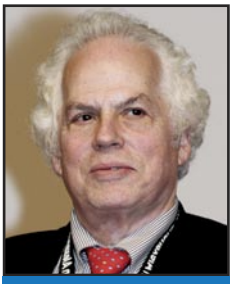
Margaret Catley Carlson

"The potential and the capacity that many scientific discoveries have can make major advances particularly in the health of the human population, however, there are sometimes some difficulties such as obscurantism, ignorance, the realties of rejection and the inability of dialogue between those who would promote the benefits of science..."



Jean Marie Lehn

"...the aim is to develop strategies that can make Nobel objects, Nobel molecules and Nobel materials in which they can be used for medicine, drugs and for the advancement of technology, biotechnology and nanotechnology..."



Stanley Prusiner

"Science can improve the lives of people everywhere, by improving nutrition, the health of people, the development of drugs, and many other diagnostic procedures..."

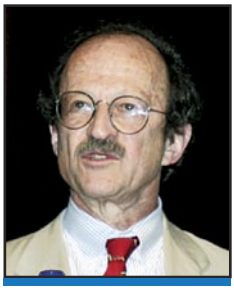
Roundtable Discussion: Nobel Views and Perceptions

From left to right: Harold Varmus, Stanley Prusiner, Jean Marie Lehn and Peter Doherty

Moderator: Ismail Serageldin,
Director, Bibliotheca Alexandrina **(Egypt)**

Ismail Serageldin

"How can we increase the participation of scientists in poor developing countries? In the process of research, let them not only be consumers of knowledge but also producers of knowledge..."



"One of the things that is very beneficial about capacity-building, is that I firmly believe that all problems are likely to be resolved in the places where they exist..."

Harold Varmus

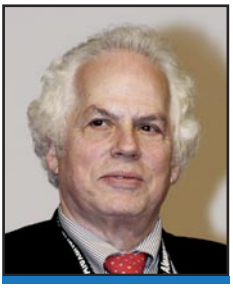
"The more we can set up nodes of high quality research activities in the developing countries, the better and faster the equity we all want to see is developed through the world, not just dealing with the situation where half of the world is advantaged and the other half is not..."

Peter Doherty

"Life has evolved out of very complicated interactions which made things more and more complex..."

Jean Marie Lehn

"...we are trying to distinguish truth from fiction, because what we are trying to do is prevent ourselves from being fooled by the data especially by the big results"



Stanley Prusiner

Rafik Nakhla and Salah Soliman,
Rapporteurs of the Nobel Roundtable

Word of Conclusion

Dr. Ismail Serageldin
"...the pursuit of knowledge is in itself a worthwhile endeavor. Science has done enormous benefit to humanity and this is a result of the utilitarian application of scientific discoveries"

From left to right: Stanley Prusiner, Harold Varmus,
Peter Doherty, Ismail Serageldin and Jean-Marie Lehn

Thursday, 27 April 2006

Health Stream: Plenary Session 1

Health Discoveries

As the wealth of new medical knowledge resulting from discoveries in basic science increases, the effective translation of this knowledge into new approaches for the prevention, diagnosis, and treatment of disease, are all key challenges for the research community. How do we move from knowledge to health? And what steps separate the basic research carried out in the laboratory from a new drug or medical technology?

Chair: Gabriel Persley, Chair, Doyle Foundation **(UK)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Elias Zerhouni, Director, National Institutes of Health **(USA)**

Transforming Medicine in the 21st Century

Sir Peter Lachmann, Emeritus Professor of Immunology, University of Cambridge **(UK)**

The Ups and the Downs of Health Discoveries

Frank Walsh, Executive Vice-President, Discovery Research, Wyeth **(USA)**

Innovative Drug Discovery

Yoshihide Hayashizaki, Project Director and Chief Scientist, Genome Exploration Research Group, Genomic Science Center, RIKEN **(Japan)**

Gabriel Persley
Session Chair

"The future is going to be used to transform medicine from curative paradigms to preemptive paradigms. In addition, science will be used to be more predictive of the disease process before it damages functionality and should be more personalized..."

Elias Zerhouni

Sir Peter Lachmann

"The only viable and human solution to a world where morbidity and mortality are highly predictable is to have comprehensive tax paid and national health services based on solidarity rather than mutuality..."

Frank Walsh

"Based on our understanding of basic biological processes, the outlook for health care, particularly in the case of devastating illnesses, is getting better."

Yoshihide Hayashizaki

"...the new content of non-coding RNA has appeared to be a possible target of analysis to move from knowledge to health..."

Track 1: Drought

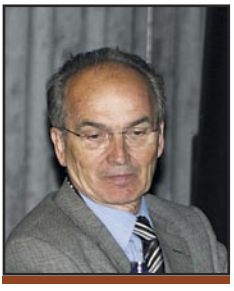
Plenum 1

Chair: David McConnell, Co-Vice Chairman, EAGLES **(Ireland)**
Rapporteur: Luis Herrera, Head, National Laboratory of Genomics for Biodiversity, the National Polytechnic Institute **(Mexico)**
Alain Godard, Ag/food strategic Advisor, BioVision **(France)**
Introductory Remarks
Magdy Madkour, Assistant Director-General, ICARDA **(Syria)**
Marc Van Montagu, Chairman, Institute of Plant Biotechnology for Developing Countries, Ghent University **(Belgium)**
What Biotechnology Can Do For Water-saving Agriculture
Luis Herrera, Head, National Laboratory of Genomics for Biodiversity, the National Polytechnic Institute **(Mexico)**

David McConnell

"Our idea of EAGLES is to work together trying to steer the world towards a sustainable future to influence the way in which the European science interacts with the developing countries..."

"It is crucial to search for ways towards consuming water used in agriculture and to open new areas of production by allowing crops to be grown in austere areas like salty or dry soils..."



Alain Godard

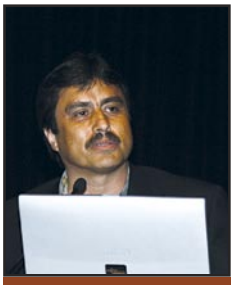
"ICARDA's mission is to improve the welfare of people through research and training in dry areas of the developing world to increase the production, productivity and nutritional quality of food while preserving and enhancing the natural resource base..."

Magdy Madkour

"On the same acreage, we should be able to gain double and triple production because otherwise natural wild life that exists will disappear..."

Marc Van Montagu

"Biodiversity is a very important resource for human kind and it has to be exploited to capitalize the benefit which exists in natural biodiversity..."



Luis Herrera

Plenary Session 2:

Launching of the Disease Control Priorities Project

DCPP is an effort involving the World Bank, the World Health Organization, the Bill and Melinda Gates Foundation, and the Fogarty International Center at NIH, and works primarily in the interest of developing countries. The Project aims to decrease the burden of diseases by producing science-based analyses from demographic, epidemiologic, disease intervention, and economic evidence for defining disease priorities and implementing control measures at the national and international levels.

Chair: Elias Zerhouni, Director, National Institutes of Health **(USA)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Dean Jamison, Senior Editor, Disease Control Priorities Project; and Fellow, Fogarty International Center, National Institutes of Health **(USA)**

"Disease Control Priorities in Developing Countries: Progress and Challenges"

Joel Breman, Senior Scientific Advisor, Fogarty International Center, National Institutes of Health **(USA)**

Infectious Diseases and the Disease Control Priorities Project (DCPP)

Sir George Alleyne, Director Emeritus PAHO: Editor DCPP **(USA)**

Cardiovascular Diseases (CVD)

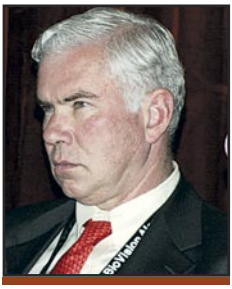
Adel Mahmoud, President, Merck Vaccines, Merck and Co. Inc. **(USA)**

Priorities for Global Health Research and Product Development

Elias Zerhouni

"The Disease Control Priorities Project (DCPP) is an ongoing effort of top disease priorities world-wide and to produce evidence-based analysis and materials to inform health policy-makers in countries worldwide about priority setting, public health and allocation of resources..."

"DCPP is an alliance of organizations designed to review, generate and disseminate information on how to improve population health in developing countries in a way that technical and policy people within governments can use the information to help them shape their own priorities..."



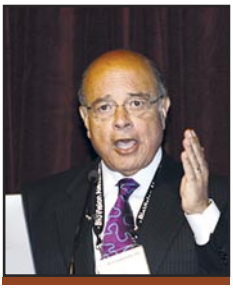
Dean Jamison

"The generation and diffusion of new knowledge with research, training leaders in research, and strengthening institutions all should be focused on low and middle income countries in collaboration..."

Joel Breman

"DCPP examines the whole range of non-communicable diseases and focuses a lot on cardiovascular diseases in details including screening of heart diseases, stroke and congestive heart failure..."

Sir George Alleyne



"DCPP basically is an approach to introduce intelligence in the way we think about health and about the policies that will affect health; so without looking for new solutions to the major health problems that affect the global community, we are not going to be able to accomplish any change in human lives and human health..."

Adel Mahmoud

Track 1: Drought

Plenum 2

Chair: Alain Godard, Ag/Food Strategic Advisor, Biovision **(France)**

Rapporteur: Luis Herrera, Head, National Laboratory of Genomics for Biodiversity, the National Polytechnic Institute **(Mexico)**

Kazuo Shinozaki, Director of Plant Science Center, Riken Yokohama Institute **(Japan)**

Gene networks in drought stress response and tolerance

Vincent Vadez, ICRISAT **(India)**

What is the scope for molecular breeding and genetic engineering to improve crops' drought tolerance?

Ahmed Bahieldin, Professor of Genetics, Faculty of Agriculture, Ain Shams University **(Egypt)**

Genetic Engineering for Drought in Cereals

"Progress in genetic engineering and gene discovery is quite important for breeding of stress-tolerant crops and trees under drought stress conditions in addition to environmental degradation and climatic changes, have global problems because of explosive increase of population in developing countries and global industrialization"

Kazuo Shinozaki

"...we are in a position where we are able to exploit new traits contributing to a better performance, so the whole idea is to have crops being more efficient at using water to produce biomass and then produce yield"

Vincent Vadez

"The challenge in Egypt is that the only source of water is the River Nile and that the gap between wheat production and consumption is still over 50%..."

Ahmed Bahieldin

Agri-food and Environment Stream:
Plenary Session 3
Agri-food and Environment: Meeting the global challenge

What are the issues facing global agriculture? How have advances in agriculture made it possible to grow more and safer food, to feed the continuously growing populations, while protecting biodiversity and the environment? And why, despite good global agricultural performance, considerable regional differences still exist?

Chair: Gurdev Khush, Professor, University of California **(USA)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

M.S. Swaminathan, Chairman, M S Swaminathan Research Foundation **(India)**

Meeting the Challenge of Sea-level Rise

Christian Patermann, Director, Directorate E, European Commission **(Belgium)**

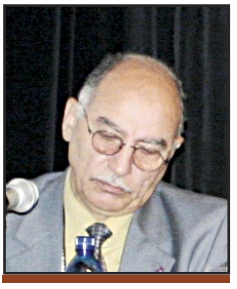
Food, Agriculture and Biotechnology research, in the Context of Global Challenges

Clive James, Chairman and Founder of International Service for the Acquisition of Agri-biotech Applications **(USA)**

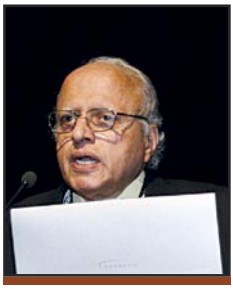
A Decade of Biotech Crops 1996-2005: Global Status and Future Prospects

Gurdev Khush

"There is an ongoing effort to use the tools of bio-technology to develop the drought tolerant crops; but our concern is the acceptance of GM crops, despite the unfavorable environment...?"

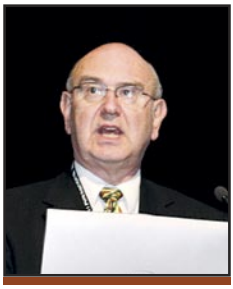


Salah Soliman
Rapporteur



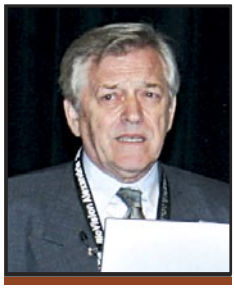
M.S Swaminathan

"The way ahead is our ability to achieve a paradigm shift from green to an ever-green revolution which indicates productivity without associated ecological harm..."



Christian Patermann

"With life sciences, we want to transfer knowledge into new sustainable eco-efficient and competitive products, since life sciences and biotechnology are advancing at a breathtaking pace..."



Clive James

"I do not see biotechnology as the panacea that can solve all issues; however, it is a technology that is similar to any other technology with its strengths and weaknesses that need to be managed in a responsible and effective way..."

Track 2: Ethics

Bioethics in Changing Lives

The new life sciences have unleashed a number of ethical questions among the intellectuals and the public at large as no technology has done before, with the possible exception of atomic energy. It is no longer whether something is technologically feasible, but whether it is ethically desirable. Inherently, the public is disturbed at what they see as tinkering with the very building blocks of life, a tendency to play god, and self doubts as to whether we have the wisdom to make the right choices. Issues from the privacy of our DNA to the patentability of genetic material, from the rights of other species to the risks of unleashing unknown biological hazards, from GMOs to the costs of medicines, all raise questions of perceived risks and questionable appropriateness. The scientific community has lost much of the public's trust in its ability by itself to avoid the risks and make the right choices about the deployment of new technological advances. Less present in the debate is the cost of inaction on the new technologies and all the good that they can bring, especially to the poorer half of humanity. Here too, some questions as to the appropriateness of the private sector patents and IPR regimes in relation to the public good need to be explored. All agree on the importance of the presence of a national, regional and even international code of bioethics, but something that would satisfy everyone, or at least the overwhelming majority – like the Universal Declaration of Human Rights did in the second half of the 20th century – is still elusive.

Chair: **Eric Huttner**, General Manager, Diversity Arrays Technology Pty Limited (**Australia**)

Rapporteur: **Ehsan Masood**, Consulting Editor, Nature (**UK**)

Ibrahim Badran, Former Minister of Health (**Egypt**)

Peter Singer, Sun Life Financial Chair in Bioethics and Director, University of Toronto Joint Center for Bioethics (**Canada**)

Sandy Thomas, Director, The Nuffield Council on Bioethics (**USA**)

Eric Huttner
Session Chair

Ehsan Masood
Rapporteur

"The land as a whole is an object of our moral concern; the moral stand and value here is the environment and that its non-human content is equally important as the human..."

Ibrahim Badran

"...the key to achieving global health equity is by science innovation in developing countries focusing on local health needs and involving the domestic private sector.

Peter Singer

"Ethical research reviewing is critical in all countries, but it is particularly important in developing countries where there may be insufficient capacities to be able to have satisfactory membership in ethical committees..."

Sandy Thomas

Plenary Session 4

Africa Biotechnology Panel

The AU and NEPAD established a High Level African Panel on Modern Biotechnology (APB) to advise the AU, its Member States and its various organs, on current and emerging issues associated with the development and application of modern biotechnology. Its specific remit is to provide the AU and NEPAD with independent and strategic advice on developments in modern biotechnology and its implications for agriculture, health and the environment. It will focus on intra-regional and international issues of regulating the development and application of genetic modification and its products. The members of the panel will present their preliminary findings to the plenary.

Chair: Ismail Serageldin, Director, Bibliotheca Alexandrina **(Egypt)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Abdallah Daar, Professor of Public Health Sciences, Toronto University **(Canada)**

Life Sciences and Development in Africa

George Sarpong, Professor of Environmenal Law, University of Ghana **(Ghana)**

Biotechnology as a tool for economic development in Africa

Florence M. Wambugu, CEO, Africa Harvest **(Kenya)**

Africa Biofortified Sorghum (ABS) Project

Soumya Swaminathan, Deputy Director, Tuberculosis Research Centre **(India)**

Tuberculosis and HIV: Overlapping Epidemics, Multiple Challenges

Ismail Serageldin

"The question is: How can we use this new technology to help us leap frog many of the past issues and make use of the new opportunities that were not there before, especially since the revolution of life sciences..."

"I do not think that biotechnology by itself can remove extreme poverty, but it can combat HIV, malaria and many other diseases"

Abdullah Daar

"... regional economic integration in Africa should embody the building and the conditions of capacities to harness and govern modern biotechnology, in addition the regional economic integration can be the institutional vehicle for mobilizing, sharing and using existing scientific and technological capacities"

George Sarpong

"Africa harvest is an international non-profit foundation with a global vision and an African focus to fight hunger and malnutrition. Our mission is to apply science and technology, including biotechnology tools, for sustainable agricultural development"

Florence Wambugu

"...using advances in communication technologies to improve health care and health information particularly in rural areas is improving the nutritional status and the food security resulting in improving the anti-retroviral treatment outcomes..."

Soumya Swaminathan

Track 3 Diabetes: Plenum 1

EAGLES Session

Chair: David McConnell, Co-Vice Chairman, EAGLES **(Ireland)**

Rapporteur: Quentin Cooper, Broadcaster and Science Journalist

Mostafa Abdel Samie, Director, World Bank/European Union Education Enhancing Program **(Egypt)**

Phil Riley, Communication Head at the IDF

Burden of Diabetes – Need for Global Action

Boerge Diderichsen, Vice-President, Corporate Research Affairs, Novo Nordisk **(Denmark)**

Changing Diabetes - A Perspective from Industry

David McConnell

"We are speaking now about biology and life sciences and wondering what would be their impact on the globe, and ensure that these impacts are to be great and very positive..."

Quentin Cooper
Rapporteur

"Health education makes use of the participatory approach of theoretical learning. Visits to health institutions and health associations give students a valuable opportunity to be acquainted with the different diseases and learn about the prevention and remedies of these diseases..."

Mostafa Abdel Samie

"How can we withhold the storm? Action is required at the highest level through working together...together we can change the face of diabetes and make it different for the future generations, otherwise we will have to face the consequences..."

Phil Riley

"It is obvious that we, Europeans, are fortunate. We live in property, have comfortable lives and we expect things to continue, but we cannot deny the fact anymore that there are millions, actually billions who are not that fortunate and need support..."

Boerge Diderichsen

Evening Event

Launching "La Main à la Pâte" Arabic Website

http://lamap.bibalex.org/

Chair: Ismail Serageldin, Director, Bibliotheca Alexandrina **(Egypt)**

Georges Charpak, Nobel Laureate, Physics 1992 **(France)**

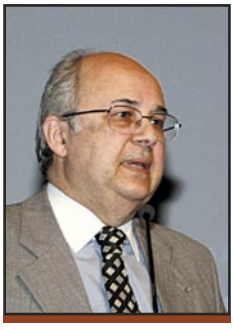
Mostafa Abdel Samie, Director, World Bank/European Union Education Enhancing Program, Program Planning and Monitoring Unit **(Egypt)**

Denis Louche, Counselor, Cooperation and the Cultural Action, French Cultural Centre **(Egypt)**

David Wilgenbus, Project "La Main à la Pâte" **(France)**

Noha Adly, Director, ICT Department, Bibliotheca Alexandrina **(Egypt)**

Hoda El Mikaty, Director, Planetarium Science Center, Bibliotheca Alexandrina **(Egypt)**



Ismail Serageldin

"We are very proud that in the Bibliotheca Alexandrina we had the privilege of signing the first ever agreement with the National Academy of Sciences of France to learn from their pioneering experiments to bring what is known as "La Main à la Pâte", sometimes referred to as hands on science or sense of discovery. We have entered into a collaboration with this academy of sciences to follow their pioneering footsteps by proceeding with the Arabization of that website..."

Georges Charpak

"It is essential to teach children science when they are very young..."

Mostafa Abdel Samie

"In the education field, we assume that improving teaching of science at all levels can be achieved by implementing new teaching methods using collaborative work, active learning strategies and new technology..."

David Wilgenbus

"...the goal of La Main à la Pâte is to input more science and better science in primary school education plans..."

"...this innovative teaching methodology was extended to every school in Egypt, where volunteers for the project, the Government and schools joined the network as soon as September 2002..."

Denis Louche

"The challenge of "La Main à la Pâte" was not only because of the complications of the Arabic language, but because of the website's automation..."

Noha Adly

"The problem with school education systems, is that teachers meet predefined application standards and remain connected to a specific curriculum which makes it difficult for them to incorporate new ideas..."

Hoda El Mikaty

Track 3: Diabetes

Plenum 2: Health Societal and Economic Challenges

Chair: David McConnell, Co-Vice Chairman, EAGLES **(Ireland)**
Rapporteur: Quentin Cooper, Broadcaster and Science Journalist
Gojka Roglic, Technical Officer Diabetes, WHO **(Switzerland)**
The Global Burden of Diabetes and the WHO Response to Face the Challenge
Viswanathan Mohan, Chairman and Chief of Diabetologist **(India)**
What is driving the diabetes Epidemic?
Jaakko Tuomilehto, Professor, University of Helsinki **(Finland)**
Lessons from Diabetes Prevention Studies
Wiam Younis, Phil Riley, Gojka Roglic, V Mohan, Jaakko Tuomilehto, Boerge Diderichsen
Panel Discussion: Promoting Healthy Living – Whose responsibility?

David McConnell
Session Chair

"This session is about promoting healthy living, so let me ask: Whose responsibility is it?"

Quentin Cooper

"Diabetes is costly and has the potential to cripple any health care system and not only a health care system of a developing country..."

Gojka Roglic

"...we have rapid demographic transitions occurring in many countries, such as epidemiological transitions, rapid urbanization, industrialization, increase of income level and rapid changes in lifestyle, values and culture..."

Viswanathan Mohan

"A single number can never tell us the degree of the diabetes burden..."

Jaakko Tuomilehto

"Therapeutic patient education is an approach with a clear understanding that helps the patients develop the information, knowledge and skills necessary to self manage their diabetic condition..."

Wiam Younis

"Information and education are the key and are not directed only to patients and people with diabetes, but also towards the government, to the people who are in charge, towards the politicians as well as the health care doctors and nurses..."

Boerge Diderichsen

"...all the people who have attended this meeting have a responsibility, in the sense of multipliers of the diabetes message; it is not difficult to persuade you, but it is up to you to go forward and persuade other people to implement changes or not..."

Phil Riley

Friday, 28 April 2006

Health Stream: Panel A-1

Biotechnology for Affordable Health Care

Nowhere is the need for science and technology as a tool for sustainable utilization of biological resources more crucial than in addressing the health needs of the world's poor. Can biotechnology provide safe, effective and affordable health care products and treatments? What will be the effects of new therapies and products on publicly-funded health care systems? Are there less costly, safer alternatives? What new health approaches focus on primary prevention?

Chair: Claudio Carlone, Chairman, Hypothesis **(Italy)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Werner Christie, Science and Technology Counselor, Royal Norwegian Embassy, Beijing **(China)**

Facilitating Biotech to Make a Good Impact for a More Balanced Development of the World

Ysbrand Poortman, Vice-President, World Alliance of Organizations for the Prevention and Treatment of Genetic and Congenital Cnditions **(Netherlands)**

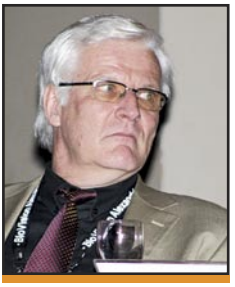
New Approaches for Prevention by Integrating Genetic/Genomic/ Biotech Knowledge in Primary and Secondary Healthcare

Ikeda Chieko, Ministry of Education, Culture, Science and Technology **(Japan)**

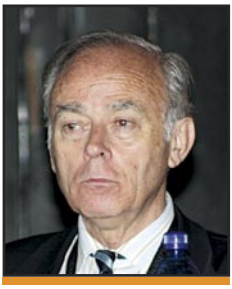
Personalized Medicine and Health Care

Claudio Carlone
Session Chair

"People may have intentions but still have the wrong ideas..."



Werner Christie



Ysbrand Poortman

"In many developed countries, 80% of the health care budget is spent, but less than 1% goes to the beginnings of life..."

Ikeda Chieko

"The key to success of affordable health care systems, is the number of diverse stakeholders who are involved in this area and the number of public you can evolve."

Agri-food and Environment Stream: Panel B-1

Environmental Issues and Agriculture

In our quest for scientific advancement and economic development we often neglect to consider the potential impact of new agricultural technologies on the environment. What state-of-the-art technologies are available for sustaining an environmentally sound and productive agricultural industry? What are the social issues that play a role in sustainable agriculture?

Chair: Effat Badr, Professor Emeritus, Faculty of Agriculture, Alexandria University **(Egypt)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Brian Johnson, Environmental Consultant **(UK)**

Potential Environmental Impacts of Salt and Drought Tolerance Traits in Crop Plants

David Todd, Senior Evaluation Specialist, The Global Environment Facility **(USA)**

The Global Environment

Weber Amaral, CEO, Brazilian Biofuels Programme **(Brazil)**

Agroenegy and Biofuels Program in Brazil

Marie Ricciardone, USA Embassy in Egypt **(USA)**

Agricultural Biotechnology and the Environment

"The challenge is to produce co-varieties of products that will move us away from the chemically-dependant agriculture, while maintaining the yield or even better, increasing it..."

Effat Badr

"Water is going to be one of the key resources that determines difference between poverty and survival in many parts of the world..."

Brian Johnson

"A lot of environmental interventions studies show that the environmental benefits are almost always paid for by local communities so there is an equity of who is gaining and who is losing..."

David Todd

"We need to have other players who can bring technology, who could share technology, who could learn from theirs mistakes and who could move ahead..."

Weber Amaral

"When biotechnology crops were first commercialized, skeptics suggested that this technology would never benefit the developing world; however today, 90% of all biotechnology farmers worldwide are in the developing countries..."

Marie Ricciardone

Track 3: Plenum 3

Diabetes around the World 1

Chair: David McConnell, Co-Vice Chairman, EAGLES **(Ireland)**

Rapporteur: Quentin Cooper, Broadcaster and Science Journalist

Morsi Arab, IDF Regional Chair Diabetes, EMME Rregion **(Egypt)**

Diabetes in the EMME

Kaushik Ramaiya, Vice-President, IDF; and Regional Chair, IDF Africa

Diabetes in Sub Saharan Africa

Samir Assaad-Khalil, Professor of Internal Medicine, Unit of Diabetes and Metabolism, Faculty of Medicine, Alexandria University **(Egypt)**

Diabetes in Egypt

Morsi Arab

"Why are poor people getting fat? It is not because of the availability of certain foods, however its all about the eating lifestyle..."

"If we are to continue giving messages, then the message should be continuously repeated..."

Kaushik Ramaiya

"When we speak about Egypt, it is the shortest time country in doubling its population..."

Samir Assaad Khalil

Health Stream: Panel A-2

How the New Life Sciences can Respond to Today's Challenges

The world is facing new challenges in human health, including the emergence of new infectious diseases, aging, HIV/AIDS and many others. In facing today's challenges we must follow a new path in order to move forward. How are industry and government responding to these challenges? What impact will the progress in Life Sciences have on health in developing nations? Will biotechnology applications create new concerns?

Chair: Peter Singer, Director, University of Toronto Joint Centre for Bioethics **(Canada)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Joel Nobel, Founder and Professor Emeritus, Emergency Care Research Institute **(USA)**

The Impact of Progress in Life Sciences on Health in Developing Nations

Yasuhiro Suzuki, Ministry of Health, Labour and Welfare **(Japan)**

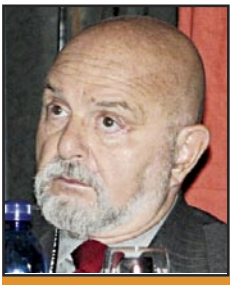
Life Sciences Research Responding to Challenges faced by the Japanese Society

Lewis Collens, President, Illinois Institute of Technology **(USA)**

The Role of Biotechnology Research Parks in Economic Development, Technology Transfer and Public Health

Peter Singer
Session Chair

"All solutions create new problems...and we have to be very thoughtful when we introduce new technologies to be sure that we will not be creating more damage..."



Joel Nobel

Yasuhiro Suzuki

“Japan can act as a bridge between developed and developing countries, but to do so, it needs a good relation between the scientific community and the public.”

“Technology is the major driver of economic improvement...”

Lewis Collens

Agri-food and Environment Stream: Panel B-2

Rethinking Priorities in Food and Agriculture

Although conventional agriculture has done an excellent job of growing plenty of food, millions of people do not get enough to eat, are undernourished and many more do not have the right kind of food for a healthy life. Feeding the world cannot be accomplished simply by producing enough food and current systems have to be re-evaluated. Who benefits under the present system, who does not, and why or why not? What types of social and economic structures are most conducive to sustainability at local, regional, national, and international levels? How should we deal with the demands of equitable food distribution?

Chair: Channapatna Prakash, Professor, Plant Molecular Genetics, Tuskegee University **(USA)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Patrick Cunningham, Professor of Animal Genetics, Trinity College, Dublin **(Ireland)**

Stefano Padulosi, Senior Scientist, Diversity for Livelihoods Programme, IPGRI **(Syria)**

Eliminating Hunger and Poverty: Priorities and Delivery through Agricultural Biodiversity

Daniel Pagliano, President, Latin American Federation of National Biotechnology Companies Association **(Uruguay)**

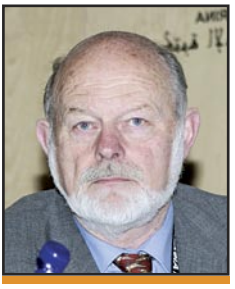
Klaus Ammann, Director, Botanical Garden, University of Bern **(Switzerland)**

Poverty Alleviation and Biotechnology: Not a contradiction

Channapatra Prakash

"Nowadays, we are at cross-roads and at a unique position where we are able to move forward trying to complete the job and to go beyond increased food production..."

"...we should jealously guard the primacy of knowledge creation that is considered as the fundamental purpose of research investment..."



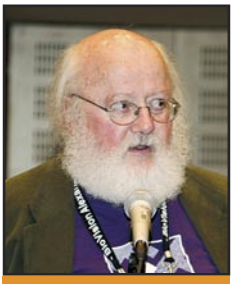
Patrick Cunnigham

Stefano Padulosi

"Agri-biodiversity is a strategic particularity for poor people who live in areas where agriculture productivity is low and who depend heavily and directly on genetic diversity and ecosystem diversity."

Daniel Pagliano

"Biotechnology is going to be an opportunity where we need to look for new partnerships and alliances..."



Klaus Ammann

"...Let us change our mind sets and make peace between organic farming and biotechnology farming to reach something like an organic precision biotechnology..."

Track 3 Diabetes: Plenum 4

Diabetes around the World 2

Chair: Huanming Yang, Co-Vice Chairman, EAGLES **(China)**
Rapporteur: Quentin Cooper, Broadcaster and Science Journalist
Changyu Pan, Professor, Chinese PLA General Hospital **(China)**
Diabetes in China: Meeting the Challenge
Viswanathan Mohan, Chairman and Chief of Diabetologist **(India)**
Diabetes in India
Mourad Rezk, Regional Medical Director, Novo Nordisk **(Egypt)**

Huanming Yang
Session Chair

"...unfortunately, there is a great gap between guide-lined targets and real life practice..."

Changyu Pan

"while genes are very important to make people more accessible to diabetes, the epidemic of diabetes is not driven away by genes; there must be a rapid change in lifestyle..."

Viswanathan Mohan

“Diabetes patients have the right to set an informed choice of their treatment, to have someone support them and to overcome the physical barriers...maybe if we offer them more convenient physiological treatment, this will improve their convenience and their adherence to the treatment...”

Mourad Rezk

Health Stream: Panel A-3

Public Health and Private Medicine: The Role of Science

Medicine and public health have become intertwined in the public mind. Yet they are very different, and though mostly complementary, they can nevertheless sometimes work at cross-purposes. Effective communication between the fields of private medicine and public health is essential to both. How do we mobilize science to strike a balanced health of individual patients and the average health of entire populations? How much will go into prevention? How do we prioritize individual needs and population needs?

Chair: Obsis Madkour, Professor, Faculty of Medicine, Cairo University **(Egypt)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina, **(Egypt)**

Kiyoshi Kurokawa, President, Science Council of Japan **(Japan)**

Healthcare Policy: Global and Local Perspectives

Christian Suojanen, Secretary-General, European Federation of Biotechnology **(Spain)**

Michael Oborne, Director, International Futures Programme, OECD **(France)**; and

Iain Gillespie, Head of Biotechnology Division, Science, Technology and Industry, OECD **(France)**

Reinventing the Clinical Innovation Enterprise

Ellis Rubinstein, President, New York Academy of Sciences **(USA)**

Bridging the Gaps from Bench to Bedside, and from North to South - Two Seminal Scientific Challenges of Our Time

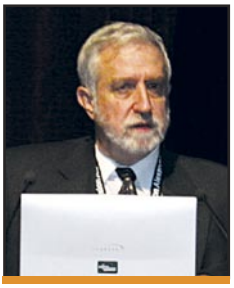
Obsis Madkour
Session Chair

Kiyoshi Kurakawa

"Knowledge society is still accumulating every day, but the question remains: how will we be using it to become wiser?..."

Christian Suojanen

"We need to understand the benefits of biotechnology and its risks..."



Michael Oborne

"...Innovation does not work unless phased as one of the several steps of a discovery, development, delivery and diffusion cycle..."

Iain Gillespie

"Public health and private medicine are the roles of science aiming at targeting medicine and targeting therapies that can deliver better public health, not just better private health..."

"It is wonderful that governments are finally focusing on the problems of developing countries, but regretfully they do not react quickly and the efforts they exert should aim to yield some benefits by the end of the day..."

Ellis Rubinstein

Agri-food and Environment Stream: Panel B-3

Regulations for Food, Agriculture and the Environment

Policy and regulatory instruments play an important role in maintaining the balance between producing enough food and environmental protection. What processes determine who makes decisions in food and agriculture and in whose interests these decisions are made? How do we ensure the establishment of rigorous, science-based regulations on agricultural biotech products? What international environmental laws and conventions exist that address global environmental issues?

Chair: Magdy Madkour, Assistant Director General, ICARDA **(Syria)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Frederic Erbisch, Former Director, Office of Intellectual Property, Michigan State University **(USA)**

Intellectual Property Management As a Regulation Tool

Philip Pardey, Professor, Science and Technology Policy, University of Minnesota **(USA)**

Willy de Greef, Executive Director, International Biotech Regulatory Services **(Belgium)**

The 20th Anniversary of the OECD Blue Book: Taking Stock

Magdy Madkour

"Policy and regulatory instruments play an important role in maintaining the balance between producing sufficient food and environmental protection..."

Frederic Erbisch

"Intellectual Property Management is very important and can help in material regulation..."

"...the essence of the green revolution was, in fact, a technical innovation that spilled largely over what was done in rich countries ..."

Philip Pardey

Willy De Greef

"There is a huge difference between scientific safety assessment, safety management and the management of risk perception..."

Track 3 Diabetes: Plenum 5

Panel Discussions: Key common issues across the Developing World

Chair: Quentin Cooper, Broadcaster and Science Journalist

Rapporteur: Quentin Cooper, Broadcaster and Science Journalist

Morsi Arab, IDF Regional Chair Diabetes, EMME Region **(Egypt)**

Kaushik Ramaiya, Regional Chair, IDF Africa Region **(Tanzania)**

Samir Assaad Khalil, Professor of Internal Medicine, Unit of Diabetes and Metabolism, Faculty of Medicine, Alexandria University **(Egypt)**

Changyu Pan, Professor, Chinese PLA General Hospital **(China)**

Viswanathan Mohan, Chairman and Chief of Diabetologist **(India)**

"...the bad news is that there is a visible increase in the number of children with type 2 diabetes in the poor regions..."

Samir Assaad-Khalil

Kaushik Ramaiya

"The ability to figure the effect of stress is very difficult, because what might be normal to someone, can be stressful to another...."

"...obesity is correlated with low income..."

Changyu Pan

Health Stream: Panel A-4

International Collaborations

As the pace of innovation and competition continues to increase in the life sciences industry, building partnerships and strengthening international collaboration in biotechnology can bring significant benefits to the world. What is the role of developed countries in supporting international research cooperation? How effective are the currently existing North-South collaborations? How do developing countries make the most of available funding opportunities?

Chair: Yehia Zaki, Head, Academic and Cultural Affairs Sector, Bibliotheca Alexandrina **(Egypt)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Joe Harford, Director, National Cancer Institute International Office **(USA)**

The "Virtual Incubator": A New Model of Public-Private Partnership to facilitate Technology Transfer in Africa

Rafael Rangel-Aldao, Professor of Biotechnology, Simon Bolivar University **(Venezuela)**

North-South Collaboration: Digital Molecular Medicine

Alfredo Aguilar, Head, Community Cooperation Activities Unit, International Scientific Cooperation, EU **(Belgium)**

The International Scientific Dimension in Framework Programme 7 (2007-2013) and Success Stories from Previous Framework Programmes

Sohail Luka, Scientific Officer, European Commission - DG Research, International Scientific Cooperation (Unit N2), EU **(Belgium)**

Non-EU Country Participation in Framework Programme 6 (FP6) and Funding Opportunities to International Scientific Cooperation in the Upcoming FP7

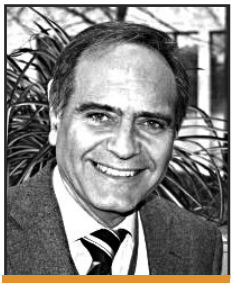
Yehia Zaki
Session Chair

"It is said that we are living in a small world, but in fact we are not; we are connected, the problem is huge and there is plenty of work yet to do...in that sense only we are small..."

Joe Harford

"...the maintenance of organization in nature is not, and can never be, achieved by eternal management orders, however can only be maintained through self-organization..."

Rafael Rangel-Aldao



"Collective research is a top priority in Europe, but at the same time it is a priority for the rest of the world..."

Alfredo Aguilar

"...some regions are more connected to the world through a particular field, such as the Mediterranean region is connected with agriculture..."

Sohail Luka

Agri-food and Environment Stream: Panel B-4

Old and New Issues: A review of some key points

Biotechnology has seldom been more controversial in the area of GMO and the potential impact on individual health and environmental safety. Yet, in the light of the evidence of the past decade or more, should these old issues now be set to rest? Are there new issues that have emerged? From economic concentration in seed production and distribution to accessibility of diagnostics and vaccines for the poor?

Chair: Joao Paes de Carvalho, Executive Director, Associação Brasileira das Empresas de Biotecnologia **(Brazil)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Malcolm Elliott, Executive Director, The Norman Borlaug Institute for Crop Improvement **(UK)**

Starvation, Obesity, or Quo Vadis?

Frank Shotkoski, Director, Agricultural Biotechnology Support Project II **(USA)**

Eggplant: A Story of Public/Private Cooperation

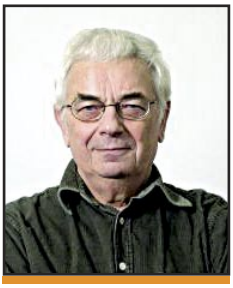
Marta Valdez, Coordinator at the Biotechnology Commission in University of Costa Rica **(Costa Rica)**

Eric Huttner, General Manager, Diversity Arrays Technology Pty Limited **(Australia)**

New Plant Breeding Strategies Using an Affordable and Effective Whole-Genome Profiling Method

Joao De Carvalho

"What we really need is the political sense in the approach for the development of health, food supply, environment and education...technological development and technology utilization both are the bases of effective results in the international cooperation solidarity..."



"...suffering extreme obesity is simply not a problem in the USA only... studies have revealed that almost 50% of the ready served food is not eaten only in the USA, however also consumed in many other parts of the world ..."

Malcolm Elliott

"...The Agricultural Biotechnology Support project is a mandate to bring forward agricultural biotechnology products to market in the developing countries and to supply into those going to benefit and help solve the problems associated with hunger and poverty around the world..."

Frank Shotkoski

"The Transgenic Rice project is a project that selects and backcrosses the transgenic lands to perform various studies on gene assessment. This project has allowed us to know that there are several wild species of rice and also to know about all of these species' biodiversity ..."

Marta Valdez

"...molecular markers and markers that assisted in selection using traditional plant breeding showed improvement to the technologies applied to this effort..."

Eric Huttner

Track 3 Diabetes: Plenum 6

Addressing the problem

Chair: Carmen Vela, Director at INGENASA **(Spain)**

Rapporteur: Quentin Cooper, Broadcaster and Science Journalist

Carani Sanjeevi, Associate Professor, Karolinska Institute **(Sweden)**

Immunogenetics of Diabetes in the Developing Wworld

Anil Kapur, Vice-Chairman of the Board of the World Diabetes Foundation **(Denmark)**

The WDF Initiative: Brief Overview of Projects

Carmen Vela
Session Chair

Carani Sanjeevi
Rapporteur

Anil Kapur

"Developing countries carry 90% of the world's total diseases burden, yet they only benefit 10% of the global health solutions..."

Evening Event

CEO Panel

Private sector today drives over two-thirds of the international research, and yet basic science is supported publicly and the private sector is governed by commercial priorities. How do we ensure that private sector efforts ultimately benefit everyone, and what will be the role of local, national and international regulatory arrangements?

Chair: Ismail Serageldin, Director of Bibliotheca Alexandrina **(Egypt)**

Villoo Patell, Avesthagen, Founder and CEO **(India)**

Brian Clark, Vice-President, European Federation of Biotechnology **(Denmark)**

International Strategic Cooperations in Biotechnology for Europe via the EFB

Tadashi Hirata, Former Chairman, CEO, Kyowa Hakko Kogyo Co. Ltd., and Member of the Board of Japan Bioindustry Association **(Japan)**

A Breakthrough in Monoclonal Antibody

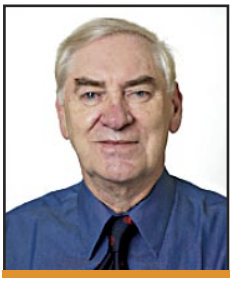
Magid Abou Gharbia, Senior Vice-President and Head, Chemical and Screening Sciences, Wyeth Research **(USA)**

Public/Private Partnerships

Villoo Pattell

"...biotechnology is showing signs of life and there is no better ingredient for success than innovation..."

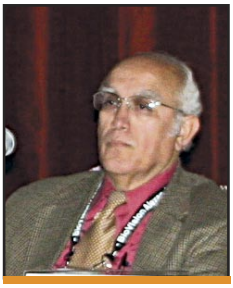
"We need knowledge to decide what is required for developing countries and for the successful development of any program...referring to Louis Pasteur's saying: Science knows no country, because knowledge belongs to humanity and it is the torch that illuminates the world..."



Brian Clark

"Based on a two-year business activity, large pharmaceutical and biotechnology companies are highly interested in PotelligentTM - A simple revolution in Antigen Dependent Cellular Cytotoxicity (ADCC) enhanced antibodies..."

Tadashi Hirata



Magid Abou Gharbia

"...public-private partnerships take different forms, where each one chooses its own objective..."

Saturday, 29 April 2006

Health Stream: Panel A-5

Biotechnology in the Developing World: Friend or Foe?

Biotechnology offers great potential benefits to developing countries. However, it is clearly a threatening concept to many people in these countries. What are the successes and constraints in introducing new biotechnologies into developing countries? What technologies are suitably designed for poor people? Are both donors and recipients involved in technology transfer aware of relevant IPR issues?

Chair: Ahmed Massoud, Professor of Dentistry, Alexandria University; and Director, Egyptian Association for Continuing Education and Training **(Egypt)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Magid Abou Gharbia, Senior Vice-President and Head, Chemical and Screening Sciences, Wyeth Research **(USA)**

Innovative Pathways for a Healthier World

Joanna Rubinstein, Director Health and Science Initiatives, UN Millennium Project **(USA)**

Biotechnology and Sustainable Development

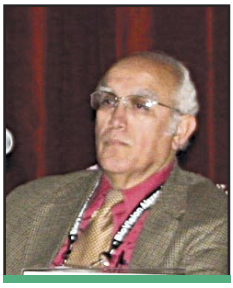
Steven Jarrett, Deputy Director, UNICEF Supply Division **(USA)**

Successes and Constraints in Introducing New Biotechnologies Into Developing Countries

Vishvanath Nene, Investigator, The Institute for Genomic Research **(USA)**

Ahmed Massoud
Session Chair

Rafik Nakhla
Rapporteur

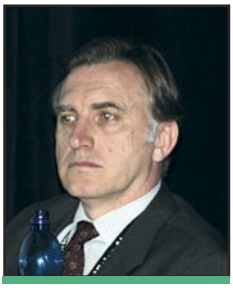


Magid Abou Gharbia

"Academic and industrial partnerships are important as long as the proper measures of intellectual property protection are placed properly..."

"...we should be thinking about the existing solutions, how we can scale them up, make them affordable and make sure that they actually reach the people who need them..."

Joanna Rubinstein



"The resources issue must be taken into account for the development of new technologies...not just for the development and production, but for the eventual marketing of biotechnology..."

Steven Jarrett

"Partnership is critical in order to leverage the modern technology and the modern sciences..."

Vishvanath Nene

Agri-food and Environment Stream: Panel B-5

Agri-food and Environment: Food production and biofortification

Bio fortification projects from around the world- stories of success

Chair: Alain Godard Ag/Food Strategic Advisor, BioVision **(France)**

Rapporteur: Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

Ingo Potrykus, Chairman, Humanitarian Golden Rice Board and Network to fight micronutrient malnutrition in developing countries **(Switzerland)**

Golden Rice and Beyond – the Power of Biofortification

Gurdev Khush, Professor, University of California **(USA)**

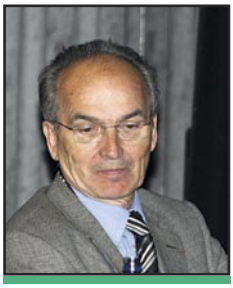
Rice for Feeding Half the World Population

Howarth Bouis, Director, HarvestPlus **(USA)**

Marilia Nutti, Researcher, National Research Center on Food Technology, Embrapa **(Brazil)**

HarvestPlus: Breeding crops for Better Nutrition – Progress in Brazil

Zhangliang Chen, President, China Agriculture University **(China)**



"Hundred of millions of people, especially children, suffer from malnutrition; either calorie malnutrition or micro-nutrient malnutrition...it is important to work on the bio-fortification of plants in order to provide solutions to this important problem..."

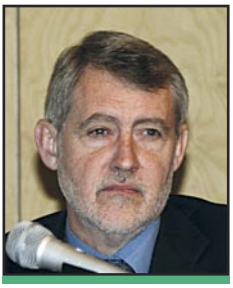
Alain Godard

"Golden rice is the first example of GMO crops which has been applying the concept of bio-fortification..."

Ingo Potrykus

"The progress which has been made during the green revolution era in increasing rice production, has boosted in the past thirty years by 130% and the cost of rice has decreased by 50% - 60 % ..."

Gurdev Khush



"The Harvest Plus program seeks to develop the micronutrient dense staple food crops applying both traditional breeding and modern biotechnology..."

Howarth Bouis

Marillia Nutti

"One of the objectives of the "Embrapa Rice and Beans" project is to develop common beans with high iron and zinc..."

Zhangliang Chen

"Even though China is the largest country in population, it still manages to feed 1.3 billion people from its agricultural production. Many factors contributed to this significant increase, but it is mainly the green revolution that made the significant contribution to the new varieties..."

Plenary Session 5: Super Course

Super Course

The Super Course provides a practical educational mean and a useful resource in a uniquely accessible format (Internet plus CD) for health workers and educators all over the globe. It is to develop global health by improving "Prevention Training" worldwide through sharing lectures.

Chair: Lewis Collens, President, Illinois Institute of Technology **(USA)**

Rapporteur: Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Francois Sauer, CEO Trans Am Group **(USA)**

Supercourse and Social Responsibility for Behavioral Changes in Health

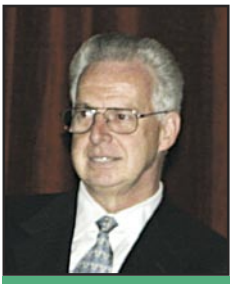
Ismail Serageldin, Director of Bibliotheca Alexandrina **(Egypt)**

Ronald LaPorte, Professor of Epidemiology, Graduate School of Public Health, University of Pittsburgh **(USA)**

Building a Supercourse of Science

Lewis Collens
Session Chair

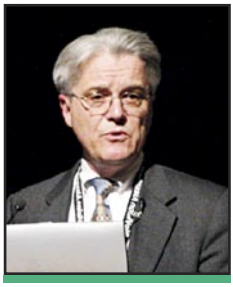
"...because it is not enough to eliminate frictions, we also need to build an engine for growth... if we have adequate engines for growth, we can accelerate discovery and translation, increase behavior in health as well as increase the concept of social responsibility..."



Francois Sauer

Ismail Serageldin

"...when global knowledge is added to local knowledge, it becomes more powerful..."



Ronald LaPorte

"You cannot be a good teacher if you have not viewed a biomedical journal for 10 or 20 years, yet, you can be a good teacher if you have good contact with the best leaders of the world and that is what Supercourse aims to provide..."

Plenary Session 6: Reporting on Parallel Sessions

1) Drought

Marc Van Montagu, Chairman, Institute of Plant Biotechnology for Developing Countries, Ghent University **(Belgium)**

Marc Van Montagu

"Complementary efforts of traditional breeding assisted with molecular tools and genetically-engineered plants, are considered the most promising way to face the important problem of drought..."

2) Agri-food and Environment

Salah Soliman, Professor, Faculty of Agriculture, University of Alexandria **(Egypt)**

"We must rethink our strategy and not overlook micronutrients that are important to healthy lifestyle..."

Salah Soliman

3) Health

Rafik Nakhla, Bibliotheca Alexandrina **(Egypt)**

Rafik Nakhla

"The world is facing challenges in human health, due to the emergence of new infectious diseases, such as AIDS..."

4) Diabetes

Quentin Cooper, Broadcaster and Science Journalist

Phil Riley, Communication Head at the IDF

Gojka Roglic, Technical Officer Diabetes, WHO **(Switzerland)**

Quentin Cooper

"... genes load the gun, lifestyle is the trigger..."

"I consider myself very fortunate to live in a part of the world where I receive fairly reasonable diabetes quality care unlike many diabetic children in the developing world who do not have enough or appropriate health insurance..."

Phil Riley

"...low-and middle-income countries should control infectious diseases prior to chronic diseases, in reality, a double burden demands for a double response..."

Gojka Roglic

5) EAGLES

Jens Degett, Executive Director, European Action in Global Life Sciences (EAGLES) **(Spain)**

"...we have been commissioned by the European Commissioner to write a number of policy papers on diabetes that we are covering with EAGLES. These policy papers will be distributed to parliamentarians not only in the European parliament but in all parliaments interested in reviewing our papers..."

Jens Degett

Plenary Session 7: Closing Session

"I am convinced that cooperation between the North and South remains essential to achieve goals of Changing Lives for the Better..."

Philippe Desmarescaux

"This BioVision forum succeeded in achieving a marvelous integration between the general principle and general approaches to the problems of the North-South paradox..."

Francois Gros

"Science is the culture of living change...it is one that believes that whatever I say today may be wrong and I do not claim to have the absolute truth..."

Ismail Serageldin


BioVision Alexandria