Regional Health Genomics and Biotechnology Newsletter

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Interview with Dr. Zeinali, Director of Research in Pasteur Institute of IRAN.

❋What do you think about EMHGBN?

By creating a network, we can add some strength to science in the developing countries. Biotechnology has traditionally belonged to the developed countries. However developing countries are trying to access that.

So these countries can join to each other with network. If Internet has only one member it won't be internet. If the network has more members, the value of it improves. It's important that the huge amount of information be divided within the network. By having more publicity we can have better results.

❋What's your suggestion for EMHGBN development?

We must develop the network and link the researchers in our country first, then advocate these networks and value them.

We must have loyalty and give information to scientists of other countries as well and link with them. It is important to introduce and discuss about experiments of other

countries and make use of these experiments.

❋Does EMHGBN have a template in the word?

It has template definitely. Some of them are EMRO, European Biotechnology Network, Asia Biotechnology Network, Africa Biotechnology Network,…

❋In order to make an active network in the region, what are the methods or solutions?

- Setting up the congresses or seminars and workshops and invite the scientists to exchange their information.
- Allocate budget for collaboration among several scientists on a common project.
- Technology exchange from one country to another.

- Some facilities must be provided to develop each of these countries network separately then link with other networks.

❋ Thank you very much Dr Zeinali for your interview, and good Luck!

Harnessing genomics to improve health in the Eastern Mediterranean Region-an executive course in genomics policy

Health Res Policy Syst. 2005 21 Jan.
http://www.ncbi.nlm.nih.gov

While innovations in medicine, science and technology have resulted in improved health and quality of life for many people in many parts of the world.

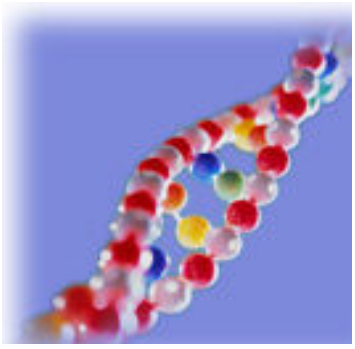
To assess the potential of genomics to address health needs in EMR, the world Health organization's Eastern Mediterranean Regional Office and the University of Toronto Joint Center for Bioethics Jointly organized a Genomics and Public Health Policy Executive Course, held September 20th -23rd, 2003, in Muscat, Oman. The 4-day course was sponsored by WHO-EMRO with additional support from the Canadian program in Genomics and Global Health. The overall objective of the course was to collectively explore how to best harness genomics to improve health in the region. RESULTS: A set of recommendations, summarized below, was formulated for the Regional Office, the Member States and for individuals.

* Advocacy for genomics and biotechnology for political leadership.

* Networking between member states to share information, expertise, training and regional cooperation in biotechnology, coordination of national surveys for assessment of health biotechnology innovation systems, science capacity , government policies, legislation and regulations, intellectual property policies, private sector activity.

* Creation in each member country of an affective National Body on genomics, biotechnology and health to: -formulate national biotechnology strategies-raise biotechnology awareness - encourage teaching and training of biotechnology-

device integration of Biotechnology within



national health systems.

Dubai International Medical Care and Diagnostic Conference & Exhibition (IMD Dubai) 10.9.2005

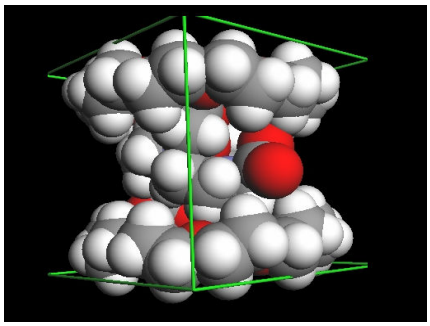
http://www.caqs.org.ae/news.html

The Dubai International Medical care and Diagnostic conference and Exhibition IMD Dubai 2005 was held from 10-12 September, 2005, the event took place in the Dubai International Exhibition Center, Dubai-United Arab Emirates.

IMD Dubai 2005 included parallel conferences and exhibitions, including:

- Dubai International Emergency and Catastrophe
- Management Conference and Exhibition Dubai International Pathology and Genetics Conference and Exhibition.
- Dubai International Obs-Gyne and Fertility Conference and Exhibition.
- Dubai International Otorhinolaryngological, Head and Neck Surgery Conference and Exhibition.
- Dubai International Hospital Management Conference and Exhibition.
- Dubai International Hospital Architectural Design and Biomedical Conference and Exhibition

- Dubai International Surgical Conference and Exhibition.
- Pan Regional Nursing Conference.
- Dubai International Urology Conference and Exhibition.



The International Hospital Federation honors pioneers in medicine from the United Arab Emirates 11. 9. 2005

http://www.caqs.org.ae/news.html

At the present Dr. Al Ali is involved in laboratory diagnosis and research related to inherited metabolic diseases.

He has developed a department of metabolic genetics that serves the region.

The development of Agricultural Biotechnology in Islamic Countries: Sharing the Experience on Issues and Challenges 6th to 8th March 2006, Cairo- Egypt

http://www.bic.org.my

The biotechnology Information Centers (BIC) of Malaysia, Indonesia, Egypt, Bangladesh and Pakistan together with the International Service for the Acquisition of Agri-biotech Applications (ISAAA) are organizing a workshop in Cario, Egypt to bring together scientists, to discuss the development of agricultural biotechnology in some selected Islamic countries. The other potential donors are Interislamic Network on Genetic Engineering and biotechnology (INOGEB) and Eastern Mediterranean Organization (EMRO / WHO).

The topics that will be covered include: developments of agriculture Biotechnology in the participating countries, government policies on Biotechnology. Islamic perspective on biotechnology, capacity building, issues and

challenges, collaboration possibilities, and achievements and past experience.

An Islamic Science Revolution?

www.sciencemag.org

In 2003 scientists in Iran published 3277 papers in international journals, a 30- fold increase over 1985, placing the country well ahead of Pakistan and on par with Egypt. Since 2000, the number of international collaborations has risen threefold, with chemistry, engineering, and physics leading the pack.

Amir Mousavi beams with pride at state of the art gene gun for injecting DNA into cells. It's a dream of many universities in Iran to have one, says Mousavi, a molecular biologist with the National Research Center for Genetic Engineering and Biotechnology (NRCGEB).

The lab has become a magnet for young talent, filling up with researchers who in other times might have left Iran to make their mark in science.

Meanwhile, science spending has climbed steadily, from about 0.2% of gross domestic product 1990 to 0.65% this year.

Kinetic study of trypsin enzymatic effect on digestion of refolded recombinant insulin by HPLC, Elisa, non-denaturing and Tris-Tricin PAGE methods.

Biotechnology Research Center, Pasteur Institute of Iran, 2005

This work has been carried out in the research team of Dr. Mahboudi.

In the present study, the scheme includes High Performance Liquid Chromatography, non-denaturing and Tris-Tricin PAG and Elisa rh-insulin is indicated. The use of this scheme at all digestion steps provided optimization of certain parameters conditions for fusion protein (FP) duration of cleavage by trypsin.

The proposed scheme may be used for solving various problems in digestion of other recombinant proteins.

Sulfitolysis efficiency in downstream processing of recombinant human insulin production and estimating the secondary structure by circular dichroism (CD)

Biotechnology Research Center, Pasteur Institute of Iran, 2005

This work has been carried out in the research team of Dr. Sardari.

During the production of recombinant human insulin, before final refolding, the S-S bonds need to be opened in a process of oxidative breakdown called sulfitolysis. In this process, sulfur atoms are converted into-SO^-_3. Sulfitolysis is a crucial step in the whole downstream process as it can produce the higher amount of properly folded fusion protein feeding the later digestion process; therefore make it vulnerable to higher scrutiny and optimization. Circular dichroism is a top of the line instrumentation technology to elucidate the secondary structure of the proteins and peptides. Using this technique would help to not only compare the structural manipulations in a step-wise process, but also to quantify the elements of the secondary structure in each step. This method proved to be an effective downstream method optimizing assistant while having the capability of being routinely used as a complementary QC instrument, while can identify the nature of peptide folding in each step.

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