



News Letter

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Science Community and Pakistan's Challenges of Health and Nutrition in the context of Sustainable Development Goals



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A 2-day National Consultative Workshop on “Science Community and Pakistan's Challenges of Health and Nutrition in the context of Sustainable Development Goals” was organized on 6–7 March 2017 by Pakistan Academy of Sciences in collaboration with Agha Khan University (Karachi), World Health Organization, and Ministry of National Health Services. The key purpose of the Workshop was to discuss the role and engagement of science community, academia and civil society to address challenges in the perspective of achieving targets for health and nutrition under Sustainable Development Goals (SDGs). The SDGs are a set of 17 aspirational global goals with 169 targets, spearheaded by the United Nations, through a deliberative process involving its 194 Member States.

Chief Organizer of the Workshop, **Prof. Dr. Zulfiqar A. Bhutta**, Fellow of Pakistan Academy of Sciences, emphasized for improved professional interlinkages by adding that “One cannot achieve health-related SDGs without improving nutrition. You cannot achieve gains in adolescent health without looking at gender equality and you cannot tackle the challenge of diarrhea without access to clean water and sanitation.”

In her inaugural speech, **Ms. Mariam Aurangzeb**, Minister of State for Information, Broadcasting and National Heritage, elaborated on the critical importance of national consensus in gathering appropriate data needed for the development of evidence-based policy and legislation. She also stressed upon the need to use full potential of science and technology to help achieve the SDGs in various fields.

Prof. Zabta Khan Shinwari, Secretary General, Pakistan Academy of Sciences, elaborated on how SDGs bring together the economic, social and environmental gains. He emphasized that Health is interlinked with other 16 Goals, and if health improves, it will benefit all the other 16 Goals.

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Participants from Federal and Provincial Health Departments, Planning Division, private sector, scientists, academics, civil society members, donors and UN partners actively contributed to the Workshop proceedings and discussions. Regrettably, it was acknowledged that Pakistan has failed to achieve most of the MDG targets due to lack of mechanisms to analyse the MDGs, as well as the lack of adequate oversight. During the Workshop, panelists and presenters stressed the need for strengthening both primary and secondary education, ensuring access to safe water and sanitation, and addressing population issues on a priority basis.

Prof. Ahsan Iqbal, Federal Minister for Planning and Development, and **Mrs Saira Afzal Tarar**, Minister of State for National Health Services, Regulations and Coordination graced closing ceremony of the forum. Establishment of an SDG Consortium was recommended to ensure Pakistan's fulfillment of the commitments made, through realistic milestones for the SDGs targets. The forum also recommended processes guaranteeing neutrality in monitoring the SDGs. The importance of involving the government, private sector, donors, scientists and the international Pakistani diaspora was stressed.



Salient Glimpses of Workshop on Health and Nutrition



Workshop on One-Health Fellowship

Efforts needed to Contain Diseases through Prevention: Engr. Baligh ur Rehman Pakistan Academy of Sciences will link stakeholders for One Health: Prof. Zabta K. Shinwari

Pakistan Academy of Sciences (PAS) in collaboration with National Academy of Sciences (NAS), USA organized International Workshop on One-Health on 30th March, 2017. Participants included heads of organizations, researchers, policy makers and experts from USA, UK, New Zealand, Thailand, Singapore and France.

Inaugurating the Workshop, **Engr. Muhammad Baligh Ur Rehman**, Minister of State for Federal Education and Professional Training promised all out support of Govt. of Pakistan to join hands with international partners to contain infectious diseases.

The experts were of the opinion that the world today is a highly interconnected place in which people, animals, and vectors – as well as the pathogens they carry or transmit – are only an airplane flight away from any point on the globe. In addition, the interface between humans and animals is ever increasing, either due to crowding and commerce or due to human colonization of previously uninhabited or sparsely populated settings. These factors create a perfect environment for rapid spread of zoonotic diseases. Recent outbreaks of diseases of zoonotic origin, such as SARS, MERS, Foot and Mouth disease, BSE, avian influenza, BSE, and Nipah virus have caused not only major human suffering but also enormous economic cost. For instance SARS has caused an economic loss of US \$ 30-50 Billions.

The speakers stressed for joint efforts to save humanity from such crises in the current scenario of

climate change and antibiotic resistance. Notable speakers at the Workshop were **Dr. Lida Anestidou** from USA, **Prof. David Hayman** from New Zealand, **Dr. Linfa Wang** from Singapore and **Prof. Zabta Shinwari** from Pakistan Academy of Sciences.

The scientists opined that the same interconnectedness that has made the world vulnerable to large-scale zoonotic outbreaks also presents an opportunity to function as a global public health community in building capacity to respond to zoonotic diseases of epidemic/pandemic potential. A country in which humans and animal scientists, health care workers, epidemiologists and laboratorians know how to work together in advance of a public health threat is one that will likely be resilient in the face of an actual outbreak. A world in which scientists from different countries know each other, and have formed professional relationships and networks, is one that will know how to collaborate in a time of crisis. Nurturing these sorts of connections among countries, and building up inter-disciplinary cadres of skilled and trained individuals at country level takes time and resources. In this spirit, NAS, USA and PAS undertook a pilot fellowship program to build capacity of early to mid-career scientists from Pakistan in One-Health, and to foster collaboration and cooperation among countries in preparedness and response to zoonotic diseases.



Participants of the Workshop with the Chief Guest,
Engr. M. Baligh-ur-Rahman, Minister, Federal Education and Professional Training

Salient Glimpses of Workshop on One-Health Workshop



Prof. Dr. S. M. Qaim Lectures on “Novel Accelerator-based Medical Radionuclides”

Each year, tens of millions of patients receive accelerator-based diagnosis and therapy around the world. Particle accelerators are used to produce radioisotopes for medical diagnosis and therapy, and as source of beams of electrons, protons, and heavier charged particles for medical treatment, this was stated by **Prof. Dr. S. M. Qaim**, Foreign Fellow of PAS, Research Centre Jülich and University of Cologne, Germany, while delivering a lecture on "Novel accelerator-based medical radionuclides", organized by Pakistan Nuclear Society (PNS) in collaboration with the *Pakistan Academy of Sciences (PAS)*.

Dr. Ishfaq Ahmad renowned Pakistani nuclear physicist, emeritus professor of high-energy physics at the National Center for Physics, and former science advisor to the Government of Pakistan was guest of honour along with **Dr. Zabta Khan Shinwari**, Secretary General, PAS.

President of Pakistan Nuclear Society (PNSI), **Dr. Syed Javaid Khurshid**, said that PNS is the credible advocate for advancement and promotion of nuclear science, technology and allied disciplines in the country

and is playing an important role in disseminating information on application of nuclear energy in various fields. It is also enhancing public awareness about safe use of radiation and isotope based technology in the sectors of environment, industry, health & agriculture.

Prof Dr Syed M. Qaim is a renowned scientist, who has worked at International Atomic Energy Agency (IAEA). He was Head of the Nuclear Data and Radionuclide Production Research Group at the Institute of Nuclear Chemistry in the Research Centre, Jülich, Germany, and Professor at the University of Köln and chairman of the International Nuclear Data Committee. Prof Qaim has published extensively and has served as Co-ordinating Editor of the journal *Radiochimica Acta*. He has been honoured in several countries through fellowships and awards, including civil award of 'Sitara-i-Imtiaz' by the President of the Islamic Republic of Pakistan.

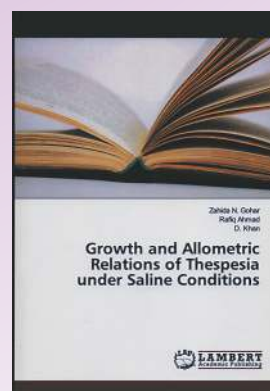
The lecture was attended by a large number of scientists, researchers, medical practitioners and oncologists from different organizations of Rawalpindi and Islamabad.



Prof. Dr. Ishfaq Ahmad and Prof. Dr. S. M. Qaim with Fellows of PAS and Participants of the Workshop

Lambert Publishes Book by Prof. Rafiq Ahmad

A book entitled “Growth and Allometric Relations of *Thespesia* under Saline Condition” co-authored by Prof. Dr. Rafiq Ahmad, Fellow, Pakistan Academy of Sciences has been published by Lambert Academic Publishing International.



Planning Meeting for “PAS-NAS Joint Workshop: Phase II”

A delegation from National Academy of Sciences (NAS), USA visited Pakistan Academy of Sciences (PAS) for a Planning Meeting on 24-26 April 2017 for the upcoming PAS-NAS Joint Workshop on “Strengthening and Sustaining a Network of Public and Animal Health Clinical Laboratories in Pakistan: Phase II”. The delegation included Dr. David Franz, Ms. Rita S. Guenther and Mr. Benjamin Rusk. The delegation had detailed meetings with **Prof. Dr. Zabta Khan Shinwari**, Secretary General, Pakistan Academy of Sciences and **Dr. Aamer Ikram**, President, Pakistan Biological Safety Association.

Pakistani scientists and professionals from both Human Health Sector and Animal Health Sector participated in the meeting. Several Skype sessions were also held.

The professionals from Human Health Sector included Dr. Asim Baig, Aga Khan Univeristy, Karachi; Dr. Amna Afzal, Hayatabad Medical Centre, Peshawar; Dr. A. S. Chughtai, Bolan Medical College, Quetta; Dr. Asghar Javaid, Nistar Medical College, Multan; Dr. M. Usman, Shifa International College, Islamabad and Dr. A. D. Javaid Iqbal, Ministry of Health, Government of Pakistan.

The scientists from Animal Health Sector included Dr. Qurban Ali, Livestock and Dairy Development Board, Islamabad; Dr. Khalid Naeem Khawja, National Agricultural Research Centre, Islamabad; Dr. R. H. Usmani, Ex-Animal Husbandry Commissioner and Dr. Fatah Ullah Khan, National Agricultural Research Centre, Islamabad.

A roadmap has been drafted for the upcoming Workshop which is scheduled to be held in September 2017.



1st International Conference on Mathematics and Physics at Air University, Islamabad

The Departments of Physics and Mathematics organized 1st International Conference on Mathematics and Physics (ICMP 2017) on 14-16 February at the Air University Islamabad in which speakers from leading national and International universities participated.

The Inaugural ceremony of ICMP 2017 was held on 14th February 2017 in which **Dr. Samar Mubarakmand** was the chief guest. ICMP 2017 was the first International Conference organized by Departments of Mathematics and Physics of Air University under the deanship of **Prof. Dr. Asghari Maqsood (SI)**. The conference provided a platform for the national researchers to interact with senior international scientists to promote research in their respective fields. The program consisted of plenary talks as well as contributed presentations.

While sharing his views Dr. Samar Mubarakmand said that “Physicists conceive and observe the phenomena but Mathematicians explain how that concept came about and the Engineers bring it into reality”. Air University Vice Chancellor, Air Vice Marshal (R) **Faiz Ameer**, while speaking on the occasion said that, “This is the first ever International Conference organized by the Faculty of Basic and Applied Sciences and I am feeling very proud and honored standing here and telling you that our Departments are progressing day by day and leading to heights of excellence”.

Chief Guest of the closing ceremony was Chairman Higher Education Commission, **Prof. Dr. Mukhtar Ahmed**.



Participants of the Workshop with the Chief Guest, **Dr. Samar Mubarakmand**, Fellow, Pakistan Academy of Sciences

Prof. Suhail Zubairy honored with Changjiang Distinguished Chair Professorship

Professor Suhail Zubairy, Fellow of Pakistan Academy of Sciences has been honored with Changjiang Distinguished Chair Professorship at the Huazhong University of Science and Technology (HUST) in Wuhan, China. This is considered the highest honor granted to a university professor by the Government of China and is very rarely granted to a non-

Chinese. A day long symposium on quantum optics was held on 25 March 2017 at HUSY to honor Prof. Zubairy which was attended by leading scientists from all over China. Prof. Zubairy will be spending a total of six months in the next three years at HUST to help in setting up a vibrant research program in quantum optics.



Symposium on Voelter Working Group

A Symposium of former PhD students of the **Voelter Working Group** took place at the Interfaculty Institute of Biochemistry of the University of Tübingen, Hoppe-Seyler-Str 4 on July 14, 2017, which are currently active as professors in research and teaching worldwide.

The speakers included Prof. Karin Amos, Vice-Rector of the University of

Tübingen, Prof. Ralf Jansen, Director of the Interfaculty Institute of Biochemistry, **Prof. Atta-ur-Rahman**, Former, President, Pakistan Academy of Sciences; Prof. Eberhard Breitmaier, University Bonn; Prof. Luis Moroder, Max Planck Institute, Martinsried; and **Prof. Wolfgang Voelter**, University of Tübingen.



14th National Symposium on Frontiers in Physics

14th National Symposium on Frontiers in Physics was organized jointly by G. C University Lahore, Pakistan Physical Society and Salam Chair. The Symposium was held on November 23-25, 2016 at the premises of G.C. University Lahore. It was a large gathering of the Physics community of Pakistan in which more than 250 physicists from all over the country participated. Four speakers came from abroad who were foreign nationals with Pakistani origin. In this 3-day event, nearly 67 scientific presentations were made covering a wide spectrum of Physics.

A special Session was also held on Prof. Abdus

Salam – his life and achievements. Seven speakers who were fairly close to him in his life, contributed and gave personal recollections. It was stressed that the extraordinary story of Salam must be told to every young boy and girl of Pakistan. The story of Salam inspires all young people with the idea that, where ever they may come from in the word, they too can make career in science or indeed in any other profession at present dominated by the rich countries.

The Symposium was sponsored by several institutions /agencies, including *Pakistan Academy of Sciences*.



Prof. Zabta K. Shinwari appointed as Dean, Faculty of Biological Sciences, Quaid-i-Azam University

Pakistan Academy of Sciences announces with great pleasure that **Prof. Dr. Zabta Khan Shinwari**, Secretary General, Pakistan Academy of Sciences has been appointed as Dean, Faculty of Biological Sciences, Quaid-i-Azam University, Islamabad.

