

## APPLICATIONS FOR PARTICIPATION

In addition to the invited delegates from CAS, PAS and INSA, the meeting will be opened to structural chemists of the region. Those wishing to take part in the meeting are required to use the downloadable application form, available on ICCBS website ([www.iccs.edu](http://www.iccs.edu)) and submit it via e-mail or fax to contact person by October 30, 2013.

Selected participants will be informed by November 30, 2013 about acceptance of their participation in the meeting. The size of the meeting will be limited to 150 with approximately half will be expected to be invited by the above-mentioned organizations. Participants will be responsible for their travel costs.

## TOUR AND SIGHTSEEING TRIPS

Several tours and sightseeing trips have been arranged for the conference participants and accompanying persons. This program covers guided tours to Karachi City.



Quaid's Mausoleum



A Handicraft Shop in the Market



A Sea Side View



A Shopping Center in Karachi

**For correspondence and further enquiries,  
kindly contact:**

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## REGISTRATION FORM

**Instructions:** Please Fill in with Capital Letters

PHOTO

Name: \_\_\_\_\_

Father's/Spouse Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Organization: \_\_\_\_\_

Field of Research: \_\_\_\_\_

Position: \_\_\_\_\_

Address: \_\_\_\_\_

Tel: Office/Institute: \_\_\_\_\_

Res.: \_\_\_\_\_

Fax: \_\_\_\_\_

Tel.: In Case of Emergency: \_\_\_\_\_

E-mail: \_\_\_\_\_

## Celebrating International Year of Crystallography (IYCr)



**IYCr SOUTH ASIA SUMMIT MEETING ON  
VISTAS IN STRUCTURAL CHEMISTRY  
28-30 APRIL, 2014, KARACHI, PAKISTAN**

*Jointly Organized by:*

Ministry of Science and Technology (MoST),  
Govt. of Pakistan

Pakistan Academy of Sciences (PAS)

Chinese Academy of Sciences (CAS)

Indian National Science Academy (INSA)

Commission on Science and Technology for Sustainable  
Development in the South (COMSATS)

*at the:*

International Center for Chemical and Biological Sciences  
(ICCBS), Karachi, Pakistan

Under the Auspices of the International Union of  
Crystallography (IUCr) and United Nations Educational,  
Scientific and Cultural Organization (UNESCO)

## INVITATION

It is my great pleasure to invite you to attend a summit meeting on “*Vistas in Structural Chemistry*” which will be held between 28<sup>th</sup> and 30<sup>th</sup> April, 2014 at the International Center for Chemical and Biological Sciences, University of Karachi, Karachi, Pakistan. This summit celebrates the International Year of Crystallography 2014 and is one of four that have been planned and envisaged for next year by the IUCr and UNESCO, the lead custodians for IYCr 2014. Prominent scientists and science policymakers from China, India and Pakistan (including representation from industry) will come together to provide a platform for a general discussion on the present status and future of scientific research, with particular emphasis on structural chemistry in South and East Asia.



Structural chemists, chemical crystallographers and those who work at the emerging structural chemistry/biology interface from China, India and Pakistan, and also neighbouring countries in South and South East Asia, will be invited to participate. The main objective of the event is to identify and celebrate cutting edge research through high level scientific talks, and also to analyze problems that impede a wider outreach and dissemination of scientific pursuits in this rapidly growing part of the world. Funding models, top down and bottom up approaches, large crystallographic facilities, regional collaborations, and an increase in individual-to-individual interactions in these countries will be among the topics that are proposed to be discussed. I will look forward to welcoming you next year in Karachi on behalf of MoST Pakistan, ICCBS, CAS, INSA, PAS and COMSATS.

**PROF. DR. ATTA-UR-RAHMAN, FRS, N.I., H.I., S.I., T.I.**  
**Patron in Chief**  
**International Center for Chemical and Biological Sciences**  
**and**  
**President**  
**Pakistan Academy of Sciences**

## INTRODUCTION

Structure, along with synthesis and dynamics, constitutes one of the three pillars of modern chemistry. Structural chemistry has been enriched with developments in the areas of crystallography and NMR spectroscopy. Structure is an all pervasive theme in chemistry ranging from the simplest molecules and molecular aggregates to complex biomolecular entities and their modes of action in living systems. X-ray crystallography is one of the most unambiguous ways of determining the three-dimensional structures of molecules. NMR provides a complementary methodology that is being used along with crystallography rather than as an alternative technique in the study of phenomena that are related to crystallization precursors, enzyme-receptor interactions and drug design. The synthesis of functional molecular solids, or crystal engineering, is a leading application of chemical crystallography and intensive efforts are ongoing in the design of organic and metal-organic framework solids (MOF) with Asian laboratories holding a key strategic position. Since the beginning of the 21<sup>st</sup> century, five of the Chemistry Nobel prizes have been awarded to crystallography based science (<http://www.iucr.org/people/nobel-prize>). These and other aspects of structural chemistry will be discussed extensively during the summit meeting.

## SCOPE AND OBJECTIVES

This regional event will provide a platform for structural chemists and biologists from countries including Afghanistan, Bangladesh, China, India, Nepal, Pakistan, Singapore, Sri Lanka and Vietnam to share their findings with science administrators and industry representatives, in order to develop a convergence of experiences and opinion and a greater understanding about the tremendous benefits of structural chemistry with an emphasis in drug discovery and solid form development of active pharmaceutical ingredients.

## WORKSHOP CONTENT

The program will include a series of plenary and keynote lectures and discussion sessions. Around 16 lectures and two discussion sessions are planned over two and a half days.

## TARGETED PARTICIPANTS

Senior structural chemists and biologists, and academicians as well as young researchers are the targeted participants of the event. Participants will include representatives of the science academies of the region, science bureaucrats and scientists from the pharmaceutical and chemical industry. Registration will be limited to a total of 120 participants.

## LOCAL HOSPITALITY AND TRAVEL

The IYCr 2014 South Asia meeting will be held at the scenic and secure campus of the International Center for Chemical and Biological Science at the University of Karachi. The ICCBS campus is located in the sub-urban of Karachi, some 20 km away from the city center. All participants will be accommodated at the newly furnished International Guesthouse of the ICCBS institutions, where the scientific sessions will also be held. The campus is located 20 min driving distance from the Jinnah International Airport (Karachi). Many international airlines are routinely operating flights to and from the Airport.



H.E.J. Research Institute of Chemistry



Dr. Panjwani Center for Molecular Medicine and Drug Research



Latif Ebrahim Jamal National Science Information Center



Prof. Dr. Atta-ur-Rahman Laboratories



ICCBS Guest House