#### **ABOUT CONFERENCE**

The rise of emerging pathogens and the infections they cause has become a serious health problem. With people travelling much more frequently and far greater distances than in the past, living in more densely populated areas, and coming into closer contact with wild animals, the potential for emerging infectious diseases to spread rapidly and cause global epidemics is a major concern. Infections, such as zoonotic diseases, have the capacity to spread between animals and humans, and in the past several pathogens have emerged from animals and seriously affected human populations, such as Ebola, avian influenza, and coronaviruses. These effects go beyond individual health and affect economies, social institutions, and global security. In fact, 75% of the emerging human infections have an animal origin.

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To effectively treat and prevent the present and future incidence of emerging infections, a comprehensive understanding of the complex factors driving their emergence is essential. Environmental factors, such as deforestation, urbanization, and agricultural practices, can disrupt natural ecosystems and increase the likelihood of pathogen spillover from animals to humans. The role of environmental factors as well as the genetic adaptations that enable pathogens to emerge must be thoroughly investigated to develop effective disease surveillance, outbreak control, and targeted interventions. Addressing the multidimensional challenges posed by these emerging pathogens requires collaborative efforts among researchers, public health agencies, veterinary professionals, environmental scientists, and policymakers.

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To deliberate upon the gigantic role of scientists, researchers, policymakers, students, media, etc., and to arrive at possible strategies/recommendations, the Pakistan Academy of Sciences (PAS) in collaboration with the Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) is organizing an ANSO-PAS Conference on "Understanding and mitigating the threat of emerging pathogens: Opportunities and challenges" on December 21-22, 2024, at the Pakistan Academy of Sciences, 3-Constitution Avenue, Sector G-5/2, Islamabad.

### **AIMS & OBJECTIVES**

- Investigate mechanisms and factors contributing to pathogenesis, disease transmission, developing effective preventive measures.
- Enhance understanding of global disease dynamics, considering the impact of globalization, travel, trade, and the environment.
- Strengthen surveillance, early detection, and control strategies for emerging infections, addressing public health implications through improved risk communication and preparedness.
- To share best practices and successful case studies in managing emerging pathogens.
- Foster interdisciplinary collaboration among experts from diverse fields to tackle cross-species pathogen transmission.

## THEMES OF THE CONFERENCE

- Understanding and mitigating the threat of emerging pathogens.
- From wildlife reservoirs to global outbreaks: Interrogating pathogen mobility.
- Health assessment, behavior, disease monitoring, and reporting.
- Developing and implementing effective surveillance systems.
- Promoting collaboration and knowledge sharing among researchers, policymakers, and public health officials.
- Pathogens (viruses, bacteria, fungi etc.), molecular pathology, anti-viral, anti-fungal, anti-bacterial and potential drug targets.
- The role of international collaborations in mitigating future threats.
- Understanding treatment and prevention strategies.
- · Assessing emerging pathogens in plants.

## TARGET AUDIENCE

The conference is open to student, researchers, scientists, clinicians & health workers, laboratory workers, virologists, veterinarians, plant scientists, physicians, pharmacists, and related researchers. A great opportunity to meet renowned international and national speakers in person.

### FINANCIAL SUPPORT

The conference is supported by ANSO under the collaborative research grant program.

### **VENUE OF THE CONFERENCE**

Pakistan Academy of Sciences, 3-Constitution Avenue, G-5/2, Islamabad, Pakistan



ANSO-PAS Conference on "Understanding and mitigating the threat of emerging pathogens: Opportunities and challenges" December 21-22, 2024 Islamabad, Pakistan



Organized by Pakistan Academy of Sciences (PAS) Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)

#### Supported by

Pakistan Academy of Sciences (PAS) Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO) Higher Education Commission (HEC), Quaid-i-Azam University Islamabad

# ALLIANCE OF NATIONAL AND INTERNATIONAL SCIENCE ORGANIZATIONS FOR THE BELT AND ROAD REGIONS (ANSO)

ANSO is a non-profit, non-government international scientific organization founded in 2018 based on the general principles of "joint consultation, joint effort and joint sharing" adhered to by the Chinese "Belt and Road Initiative for the promotion of shared development and achievement of the UN SDGs. ANSO members include national academies of sciences, universities, research institutes and international organizations. ANSO is committed to playing an effective role in catalyzing and implementing innovative international science initiatives with the member countries and other partners to advance the ANSO vision and help build a community of the whole humankind with a shared future. Science, Technology, Innovation and Capacity building (STIC) is essential to the progress and welfare of human societies and ANSO is particularly keen to cooperate and partner those who want to collaborate in these endeavors ANSO aims to gain global recognition and support through continuous activity, robust scientific programs, and successful responses to global needs.

## Pakistan Academy of Sciences (PAS)

The Pakistan Academy of Sciences (PAS) was established in February 1953 by the Prime Minister of Pakistan. It holds consultative and advisory status from the Government of Pakistan for scientific development. With 83 Fellows, 37 Foreign Fellows, and 27 Members, the PAS is recognized as a prestigious scientific institution. It provides science-based advice to the government and organizes conferences and lectures on important national topics and emerging scientific areas. Notable recent activities include monthly brainstorming sessions called "Making Pakistan Science Conscious," which engage senior and young scientists, including postgraduate students and faculty, in collaboration with universities and scientific organizations in the country.

#### **IMPORTANT DATES**

- November 10, 2024 1st Announcement & Registration Commencement
- December 10, 2024 Due date for abstract and CV submission
- December 15, 2024 Notification of the acceptance of the abstract
- December 10, 2024 Registration due date
- December 15, 2024 Due date for submission of the presentation file

#### PRELIMINARY PROGRAM

Friday December 20, 2024 Arrival in Islamabad

Saturday

Sunday

- December 21, 2024 09:00 – 09:30 (Registration) 09:30 - 10:30 (Inauguration) 10:30-11:00 (Tea Break) 11:00-13:30 (First Tech. Session) 13:30-14:00 (Lunch Break) 14:00-17:00 (Second Tech. Session) 19:30 (Welcome Dinner)
- December 22, 2024 09:00- 10:30 (3rd Tech. Session) 10:30-11:00 (Tea Break) 11:00-14:00 (Poster Presentations and panel Discussions) 14:00-14:30 (Lunch Break) 14:30-16:00 (4th Tech. Session) 19:30 (Dinner)

### LANGUAGE

English is the official language of the workshop. This language will be used for printed materials, presentations, and discussions.

#### ACCOMMODATION

PAS Fellows Lodge, Islamabad, Pakistan & selected guest house(s) in Islamabad

# INTERNATIONAL ADVISORY COMMITTEE

- Prof. LIU Weidong, Executive Director, ANSO Secretariat
- Prof. ZHAO Minyan, Program Officer, ANSO (China)
- Prof. SHI Zhengli (China)
- Prof. David T.S. Hayman (Massey University, New Zealand)
- Prof. WEI Hongping (China)

## **CONFERENCE COORDINATORS**

- Dr. Muhammad Ali
- Prof. Dr. Zabta K. Shinwari

# **ORGANIZING COMMITTEE**

- Prof. Dr. Kauser Abdullah Malik , Patron & President PAS
- Prof. Dr. Sukit Limpijumnong, Patron, President ANSO
- Prof. Dr. Niaz Ahmad Akhter, Co-Patron & VC QAU
- Prof. Dr. M. Aslam Baig, Co-Patron & Sec. Gen. PAS
- Prof. Dr. Saleem Asghar, Treasurer PAS
- Prof. Dr. Zabta K. Shinwari, VC FUUAST
- Dr. Muhammad Ali, PI-ANSO Project (Focal person)
- Dr. Riffat M. Qureshi, Organizer
- Mr. Sajid Majeed, Organizer
- Mr. Hamza Waheed, Organizer
- Mr. Muhammad Naseer, Organizer

## **CONTACT INFORMATION**

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#### For Registration:

- Mr. Muhammad Jawad (Email: mjawad2434@gmail.com)
- Mr. Zeeshan Hidayat (Email: zeeshanhiidayat@gmail.com)
- Ms. Emaan Ashraf (Email: chemaan079@gmail.com)

#### For hospitality & information

- Mr. Hamza Waheed (Email: hamza@paspk.org)
- Mr. Ali Ahsan (Email: aliahsan@paspk.org)
- Mr. Muhammad Naseer (Email: <u>m.naseer@paspk.org</u>) (Tel: 051 9204843)

With ACCO

presentations, and discussions.