



## 7<sup>th</sup> International Leh Symposium 2024

Theme: *Molecular Mechanisms and Therapeutics of Hypoxic Lung*

Venue: Mahabodhi International Meditation Center, Saboo, Leh, Ladakh, INDIA

August 04 – 09, 2024



### SCIENTIFIC PROGRAM

#### Day 1: Sunday, August 4, 2024

Time	Activity
16:00 - 17:00	Registration
16:00 - 17:00	HHS-General Body Meeting
17:00-17:15	Welcome address by Qadar Pasha, Founder & Director, Institute of Hypoxia Research & Hypobaric Hypoxia Society (HHS)

#### Inaugural Session 1 (Online)

Chairs: Qadar Pasha and Brian Graham

Time	Speaker	Title of Talk
17:15-18:00	Sir Peter J Ratcliffe Nobel Laureate University of Oxford, UK	Oxygen sensing mechanism that regulates gene expression in response to decreases in cellular oxygenation
18:00-18:20	Damian Bailey University of South Wales, UK	Radical' insights into oxygen-sensing by the human brain: Pushing the bioenergetic limits!
18:20-18:25	Discussion	
18:25-18:45	Andrew Murray University of Cambridge, UK	Human Metabolic Adaptation to High-Altitude Hypoxia
18:45-18:50	Discussion	
18:50-19:10	Soni S. Pulamsetti Max Planck, Germany	Hypoxia-Mediated Translational Dynamics: New Discoveries and Perspectives
19:10-19:15	Discussion	
19:15-19:35	Josef Prchal & Jihyun Song University of Utah, USA	Alternatively spliced NFKB1 causes elevated hemoglobin levels in Andean Aymaras
19:35-19:40	Discussion	
19:40-20:00	Tim Lahm National Jewish Health, Denver, Colorado, USA	Crosstalk between hypoxia and estrogen signaling in the pulmonary vasculature and right ventricle
20:00-20:05	Discussion	
20:05	DINNER AND INTERACTIONS AMONG DELEGATES	

## Day 2: Monday, August 05, 2024

Time	Event
08:00	Welcome Note

### Session – 2

#### Human Response to High Altitude

Chair: Linda E Keyes and Peter Hackett

Time	Speaker	Title of Talk
08:30-08:50	<b>Corinna Schön</b> <i>UMass Chan Medical School - Baystate</i>	Beyond the peaks: Fatalities in the Swiss Mountains and the Vital Role of Psychological Support for Rescuers“
08:50-08:55	Discussion	
08:55-09:15	<b>Niraj Rai</b> <i>Birbal Sahni Institute of Palaeosciences, Lucknow, India</i>	Genetic architecture and adaptation of Ladakh highlanders of trans-Himalayas
09:15-09:20	Discussion	
09:20-09:40	<b>Spalchen Gonbo</b> <i>SNM Hospital, Leh, India</i>	Anemia at high altitude - Real or a calculation error?
09:40-09:45	Discussion	
09:45-10:05	<b>Tashi Motup</b> <i>SNM Hospital, Leh, India</i>	Gall Bladder Stone disease Ladakh. Incidence, disease trend and future prospects
10:05-10:10	Discussion	
10:10-10:30	<b>Peter Hackett</b>	Vision on HA physiological responses and the way forward
10:30	<b>Tea / Coffee</b>	

### Session – 3

#### Cardiovascular Health and High Altitude

Chair: Mahesh K and Kumaravelu R

Time	Speaker	Title of Talk
10:50-11:10	<b>Ajay Bahl</b> <i>Postgraduate Institute of Medical Education and Research, Chandigarh</i>	Profile of cardiomyopathies from Jammu and Kashmir and Ladakh
11:10-11:15	Discussion	
11:15-11:35	<b>Rakesh C. Kukreja</b> <i>University of Virginia, USA</i>	Hypoxic preconditioning of the heart
11:35-11:40	Discussion	
11:40-12:00	<b>Col Uday Y</b> <i>Armed Forces Medical College, Pune</i>	Hematology at HAA
12:00-12:05	Discussion	
12:05-12:25	<b>Kumaravelu Jagavelu</b> <i>CSIR-Central Drug Research Institute, Lucknow, India</i>	Dual role of Damage associated molecular pattern HMGB3 in myocardial ischemia
12:25-12:30	Discussion	
12:55-13:05	<b>GROUP PHOTOGRAPH</b>	
13:05-14:00	<b>LUNCH</b>	

## Session – 4

**Immunological response under hypoxic condition**  
**Chair: NK Ganguli, Kashif Hanif and Prashant Bobhate**

Time	Speaker	Title of Talk
14:00-14:20	<b>Brian Graham</b> <i>University of California, San Francisco, USA</i>	Immune Cascade In Inflammatory Pulmonary Vascular Disease Including Schistosoma And Hypoxic Pulmonary Hypertension
14:20-14:25	Discussion	
14:25-14:45	<b>Nirupama Trehanpati</b> <i>Institute of Liver and Biliary Sciences, Delhi</i>	Altered Cellular Energetics of immune cells in the hypoxic niche of Hepatocellular Carcinoma
14:45-14:50	Discussion	
14:50-15:10	<b>Rajkumar Savai</b> <i>Max Planck Institute for Heart and Lung Research, Germany</i>	Inflammatory Lung Microenvironment in Lung Cancer-Associated Pulmonary Hypertension
15:10-15:15	Discussion	
15:15-15:35	<b>Rahul Kumar</b> <i>University of California, San Francisco, USA</i>	Role of the immune response in hypoxic pulmonary hypertension
15:35-15:40	Discussion	
15:40	<b>Tea/Coffee</b>	

## Session – 5

### Posters Session

**Chair: Brian Graham, Raj Kumar Savai, Arpana Vibhuti**

16:30-18:30	<b>Posters Presentation</b>
18:30-19:30	<b>CULTURAL PROGRAM</b>
20:00	DINNER AND EXPLORATION OF SCIENTIFIC COLLABORATIONS

## Day 3: Tuesday, August 06, 2024

### Yoga and Meditation

08:00-09:00

Dhamma Laddha Vipassana session by revered Guruji

#### Session – 6

Panel discussion - Evidence-based traditional medicine for wellness.

**Chair: Akshay Anand, Raghvendra Rao, Corinna Schön**

Time	Speaker	Title of Talk
09:30-10:30	<p>Akshay Anand PGIMER, Chandigarh Neelam Dahiya PGIMER, Chandigarh Pramod Avti PGIMER, Chandigarh Neerja Bharti PGIMER, Chandigarh Krishan Kumar PGIMER, Chandigarh Pooja Ojha All India Institute of Medical Sciences, Jodhpur Anumeha Bhagat Government Medical College &amp; Hospital Monika Pathania All India Institute of Medical Sciences, Rishikesh Ganashree All India Institute of Medical Sciences, Patna Manjulata All India Institute of Medical Sciences, Patna</p>	Evidence-based Traditional medicine for Wellness
10:30-10:50	<p>Varun Malhotra AIIMS Bhopal</p>	Examining the Influence of Yoga on Pulse Rate, Oxygen Saturation, and Hypoxic Effects: Analysis of Psychophysiological Parameters and Anaerobic Metabolism Shift
10:50-10:55	Discussion	
10:55	Tea/Coffee	

#### Session – 7

Management and therapeutic interventions for Pulmonary Disorders

**Chair: Anurag Agrawal, Rabyang Tenzin, TN Sathyaprabha**

Time	Speaker	Title of Talk
11:30-11:50	<p>Prashant Bobhate Kokilaben Dhirubhai Ambani Hospital, Mumbai, India</p>	Heart rate variability: prognostic marker in Pediatric PAH
11:50-11:55	Discussion	
11:55-12:15	<p>Shine Kumar Amrita University, Kochi, India</p>	Pregnancy and Pulmonary Arterial Hypertension - N terminal pro Brain Natriuretic Peptide Trends and Outcomes
12:15-12:20	Discussion	
12:20-12:50	<p>Kashif Hanif CDRI, Lucknow</p>	Selective Estrogen Receptor Modulation Protects Against Pulmonary Hypertension
12:50-12:55	Discussion	

12:55-13:15	<b>Sonam Spalgais</b> VPCI, Delhi	Non-occupational Anthracofibrosis/Anthracosilicosis in Ladakh
13:15-13:20	Discussion	
13:20-14:00	<b>LUNCH</b>	

### Session – 8

#### Environmental Influences in Pulmonary Pathophysiology

Chair: NK Ganguli and Sunil Munshi

Time	Speaker	Title of Talk
14:00-14:20	<b>Parvaiz A. Koul</b> <i>Sher-i-Kashmir Inst. of Med. Sciences, India</i>	Chronic obstructive pulmonary disease in Kashmir, a moderately high altitude area
14:20-14:25	Discussion	
14:25-14:45	<b>Aastha Mishra</b> <i>CSIR-IGIB, India</i>	Molecular mechanisms underlying High Altitude Pulmonary Edema
14:45-14:50	Discussion	
14:50-15:10	<b>Stanzen Rabyang</b> <i>Sonam Norboo Memorial, Leh, India</i>	Consequences of pulmonary hypertension in native highland population
15:10-15:15	Discussion	
15:15-15:35	<b>NK Ganguli</b> <i>Ex-Secretary, Ministry of Health &amp; Family Welfare and EX-DG, ICMR</i>	Interactions on pulmonary health and the way forward
15:35	<b>Tea/Coffee</b>	

### Session – 9

#### Neurological Response at High Altitude

Chair: Parvaiz A. Koul, Aastha Mishra, Shine Kumar

Time	Speaker	Title of Talk
16:00-16:20	<b>Sunil Munshi</b> <i>Queens Medical Centre, Nottingham, UK</i>	Stroke at High Altitude
16:20-16:25	Discussion	
16:25-16:45	<b>Akshay Anand</b> <i>PGIMER, Chandigarh, India</i>	Can Sudarshan Kriya Yoga and advance meditation techniques facilitate
16:45-16:50	Discussion	
16:50-17:10	<b>Vishnu Swarup</b> <i>AIIMS Delhi</i>	Options for neuroprotection from hypoxic brain injury after cardiac arrest?
17:10-17:15	Discussion	
17:15-17:30	<b>Buddha Basnyat</b> <i>Patan Academy of Health Sciences, Kathmandu, Nepal</i>	Interactions on neurological health status at HA and the way forward
18:00-20:00	<b>CULTURAL PROGRAM</b>	
20:00	<b>DINNER AND EXPLORATION OF SCIENTIFIC COLLABORATIONS</b>	

**Day 4: [Wednesday, August 07, 2024](#)**

**Session – 10**

**High altitude Pathophysiological response**  
**Chair: Manasi Bhattacharjee, Anjali Agrawal**

Time	Speaker	Title of Talk
08:30-08:50	Linda E Keyes <i>Highland Hospital in Oakland, CA</i>	Does Blood Pressure Matter for Travelers to High Altitude?
08:50-08:55	Discussion	
08:55-09:15	Arpana Vibhuti <i>SRM Institute, Haryana, India</i>	Telomeric tankyrase: Pharmacological target for high altitude hypoxia pathophysiology
09:15-09:20	Discussion	
09:20-09:40	Sudipta Ghosh <i>North-Eastern Hill University, Shillong, India</i>	High Prevalence of Hypertension among the Indigenous Populations of North-East India: An Evolutionary Perspective
09:40-09:45	Discussion	
09:45-10:05	Padma Deskit <i>SNM Hospital, Leh, India</i>	High altitude maladies: Experiences and observations of a local surgeon
10:05-10:10	Discussion	
10:10	Tea/Coffee	

**Session – 11**

**Medical Technologies in Mapping Diseases**  
**Chair: Ajay Bahl and Stanzen Rabyang**

Time	Speakers	Titles of Talks
11:00-11:20	Anjali Agrawal <i>Senior Consultant and Delhi Head, Teleradiology Solutions</i>	Diagnostic imaging at high altitude--overcoming stratospheric challenges with plausible solutions
11:20-11:25	Discussion	
11:25-11:45	Mahesh Kappanayil <i>Amrita Inst. of Med. Sciences and Res. Centre, Kochi, India</i>	Role of magnetic resonance imaging in understanding the pathobiology of pulmonary arterial hypertension
11:45-11:50	Discussion	
11:50-12:10	Vishal Bansal <i>Vallabhai Patel Chest Institute, India</i>	Interventions to Improve Hypoxia Tolerance
12:10-12:15	Discussion	
12:15-12:35	Anurag Agrawal <i>Ashoka University, India</i>	From Bots to Robots: How AI is changing Health and what it means for high altitude medicine
12:35-12:45	Discussion	
13:00-14:00	LUNCH	

**Session – 12**

**Young Investigator Talks**  
**Chair: Rahul Kumar, Rakesh Kukreja**

Time	Speaker	Title of Talk
14:00-14:20 14:20-14:25	Taylor Shay Harman <i>Syracuse University, USA</i> Discussion	Andean versus Tibetan adaptive modes: evidence at rest and during exercise
14:25-14:45 14:45-14:50	Shaarika Munshi Imperial College London, London, UK. Discussion	Variation in hypoxemia adaptation in patients with pulmonary arteriovenous malformations- clinical quantification and predictors of exercise capacity
14:50-15:10 15:10-15:15	Hiroaki Arima <i>Nagasaki University, Japan</i> Discussion	Gender difference and polycythemia associated with polymorphism in rs13419896 and rs2790859 among Tibetan highlanders living in Mustang, Nepal
15:15-15:35 15:35-15:40	Rikeshwer Prasad Dewangan Jamia Hamdard, New Delhi Discussion	Targeting Hypoxia-Inducible Factor (HIF): An Aspects of Medicinal Chemistry and Drug Development
15:40-16:00 16:00-16:05	Manzoor Ali <i>CSIR-IGIB, Delhi</i> Discussion	Profiling of circulating cell-free DNA and its release mechanisms in High-Altitude Physiology & Pathophysiology
16:05	Tea/Coffee	

**Session – 13**

Panel discussion - Evidence-based community medicine.

**Chair: Forhad A Zaman**

Time	Speaker	Title of Talk
16:30-17:30	Dr Rashmi Agarwal (Moderator) <i>AllIMS Guwahati</i> Dr Manasi Bhattacharjee <i>AllIMS Guwahati</i> Dr Kalyan Sharma <i>AllIMS Guwahati</i> Dr Ankur Khandelwal <i>AllIMS Guwahati</i> Dr Diganta Borah <i>AllIMS Guwahati</i>	Clinical Hypoxia at High altitude

**Session – 14**

**Awards and Valediction**

**Chair: Santosh Pasha, Rahul Kumar, Aastha Mishra**

Time	Activity
17:30-17:50	Announcement and Presentation of Awards
	Dr. Qadar Pasha Young Investigator Award (A certificate and a cash award of INR 20K)
	Best Poster Awards
17:50-18:10	Valediction: Vote of thank Meeting Organizers
19:00	<b>DINNER AND EXPLORATION OF SCIENTIFIC COLLABORATIONS</b>

**Day 5: Thursday, August 8, 2024**

**Roundtable discussions over breakfast: Targets achieved during the symposium**

**Local Hospital Visit / Interactions with HA physicians**

**Bon voyage with an enriched experience, &  
We meet at the 8<sup>th</sup> International Leh Symposium 2026**