



Pakistan Society
of Basic & Applied
Neuroscience

SCIENTIFIC PROGRAM

10th Annual Neuroscience Conference



PUSHING THE BOUNDARIES

Celebrating Revolutionary Decade for Neuroscience in Pakistan

18th – 20th OCTOBER, 2024

LAHORE, PAKISTAN

ORGANIZED BY



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DAY 1

18th October, 2024



PRE-CONFERENCE WORKSHOPS

Time	Workshop	Facilitator	Venue
09:30 am - 05:00 pm	Biomaterials Synthesis, Production and Use: From Lab to Clinic	Dr. Muhammad Yar Associate Professor, IRCBM Muhammad Usman Senior Manager, IRCBM	Interdisciplinary Research Center for Biomedical Materials COMSATS University, Lahore
10:00 am - 01:00 pm	Unlocking the Neuroscience of Stress Strategies for Resilience and Wellbeing	Dr. Sadaf Ahmed President, PASBAN University of Karachi, Karachi	Lecture Room 2 Shalamar Medical & Dental College Lahore
10:00 am - 01:00 pm	Neuroimaging Research and fNIRS Experimentation, Data Acquisition and Processing	Neuroimaging Research Group Air University, Islamabad	Computer Lab Shalamar Medical & Dental College Lahore

INAUGURAL CEREMONY

Venue: Shalamar Medical & Dental College, Lahore

Time	Speaker	Title
07:00 pm - 07:10 pm	Tilawat-e-Qur'an	
07:10 pm - 07:20 pm	Prof. Dr. Nasir Raza Awan Conference Chair CEO, SpinaCure Professor of Neurosurgery, Sharif Medical City, Lahore Resident Scientist, Lahore University of Management Sciences	Conference Introduction Dreams & the Future
07:20 pm - 07:35 pm	Prof. Dr. Syed Ather Enam, SI Professor of Neurosurgery & Sakarkhanum & Hussain Ebrahim Family Chair Director, Center of Regenerative Medicine & Stem Cell Research and Scientific Director, Juma Research Laboratories, AKUH, Karachi Founding President PASBAN	Address by the Founder PASBAN: The Vision
07:35 pm - 07:55 pm	Dr. Sadaf Ahmed President (Elect) PASBAN Associate Professor of Physiology, UoK Director, Center of Health and Wellbeing, UoK, Karachi	PASBAN Updates A Decade's Journey
07:55 pm - 08:05 pm	Prof. Dr. Zahid Bashir Professor of Forensic Medicine Principal, Shalamar Medical & Dental College, Lahore	Address by the Guest of Honor Collaboration: Stronger Together
08:05 pm - 08:15 pm	Dr. Sohail A. Qureshi Director of Research & Innovation Shalamar Institute of Health Sciences, Lahore	Address by the Guest of Honor Research: A Necessity
08:15 pm - 08:25 pm	Dr. Aqif Anwar Chaudhry Vice Chancellor, University of Education Chairman, IRCBM, COMSATS, Lahore	Address by the Guest of Honor The Way Forward
08:25 pm - 08:45 pm	Mr. Shahid Hussain CEO, Service Sales Corporation Rector, Lahore University of Management Sciences	Address by the Chief Guest Life Experience & Wisdom
08:45 pm - 10:00 pm	Inaugural Dinner	

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DAY 2

19th October, 2024



Venue: Syed Babar Ali School of Science & Engineering, LUMS

REGISTRATION

09:00 am - 03:00 pm	Signup
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Al-Razi Session: BEHAVIORAL NEUROSCIENCE 1

	<p>Chair: Dr. Sonia Siddiqui Co-Chair: Prof. Dr. Farhat Batool Moderator: Dr. An'nah Askari</p>		
Time	Duration	Speaker	Title
09:30 am - 09:35 am	05 mins	Tilawat-e-Qur'an	
09:35 am - 09:55 am	20 mins	<p>Dr. Shamooun Noushad General Secretary, PASBAN Malir University, Karachi</p>	<p>Featured Talk Nature's Healing Power: Exploring the Role of Green Spaces in Post-Traumatic Growth</p>
09:55 am - 10:03 am	08 mins	<p>Raheema Javid Department of Psychology, Columbia University, New York</p>	Cooperation vs. competition between encoding and retrieval in behavior and in the hippocampus
10:03 am - 10:11 am	08 mins	<p>Munazza Raza Mirza Dr. Panjwani Center for Molec Med and Drug Res, ICCBS, UoK, Karachi</p>	Multi-Omic Analysis of Intellectual Disability Explored Disease-Specific Joint Pathways in The Clinical Samples
10:11 am - 10:19 am	08 mins	<p>Aateqa Hashmi King Edward Medical University, Lahore</p>	Artificial Intelligence Assisted Clinical Practice: Opportunities and Challenges in Child and Adolescent Mental Healthcare
10:19 am - 10:27 am	08 mins	<p>Angelina Jessani Aga Khan University, Karachi</p>	Visually Induced Motion Sickness Susceptibility among medical students using visual devices
10:27 am - 10:35 am	08 mins	<p>Alishba Jahangir Air University, Islamabad</p>	Cognitive Neuroscience of Reading Comprehension: An fNIRS based Neurolinguistic Study
10:35 am - 10:43 am	08 mins	<p>Aneesa Batool Air University, Islamabad</p>	Neurolinguistic Programming as a Tool for Managing Stress and Anxiety: A Neuroscientific Perspective
10:43 am - 10:51 am	08 mins	<p>Shaheer Suhail Memon Liaquat University of Medical and Health Sciences, Jamshoro</p>	Sleep Quality and its effect on Academics.
10:51 am - 11:00 am	09 mins	Question & Answer and Souvenir Distribution	
11:00 am - 11:20 am	20 mins	Tea & Networking	

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Al-Zahrawi Session: CLINICAL NEUROSCIENCE



Chair: Prof. Dr. Arif Harikar **Co-Chair:** Dr. Fazal Arain
Moderator: Dr. Faria Amjad

Time	Duration	Speaker	Title
11:20 am - 11:40 am	20 mins	Nauman Barlas Northumbria Healthcare NHS Foundation Trust, UK	Featured Talk Patterns of findings on MRI in patents presenting with Cognitive Decline: Dementia
11:40 am - 12:00 pm	20 mins	Eesha Tahir Allama Iqbal Medical College, Lahore	Featured Talk Analysis of Cerebral Microdialysis in patients with traumatic brain injury: relation to Intracranial Pressure and Cerebral Compliance
12:00 pm - 12:08 pm	08 mins	Dr Malaika Imran Rehman Medical Institute, Karachi	Split Rib Grafting for Cranioplasty in Growing Skull Fractures in Infants: Prospective Study from LMIC.
12:08 pm - 12:16 pm	08 mins	Misbah Shams Aga Khan University, Karachi	Responsive Parenting and Early Childhood Brain Development: A Preliminary Analysis of Caregiver Perceptions
12:16 pm - 12:24 pm	08 mins	Dr. Muhammad Jehanzeb Punjab Institute of Neurosciences, Lahore	Innovations in Spine Surgery: A Decade of Progress from Open to Minimally Invasive and Segmental Fixation Techniques
12:24 pm - 12:32 pm	08 mins	Haseeb Bin Najeeb Allama Iqbal Medical College, Lahore	Surgical Technique Dictates the future in CPA tumor
12:32 pm - 12:40 pm	08 mins	Muhammad Armghan Zulfqar Allama Iqbal Medical College, Lahore	Advanced Neuronavigation-Assisted Endoscopic Endonasal Transsphenoidal Resection for Pituitary Microadenomas in Cushing's Disease: Clinical and Hormonal Outcomes
12:40 pm - 12:48 pm	08 mins	Laraib Anmol Allama Iqbal Medical College, Lahore	Cutaneous Stigmata heralds Calamity
12:48 pm - 12:56 pm	08 mins	Nizar Dawoodani Aga Khan University, Karachi	Financial and Logistical Challenges in Implementing Interventions to Support Early Childhood Brain and Overall Development in Healthcare Settings of Pakistan and Afghanistan
12:56 pm - 01:05 pm	09 mins	Question & Answer and Souvenir Distribution	
01:05 pm - 02:05 pm	60 mins	Lunch and Poster Exhibition	
01:05 pm - 02:05 pm	60 mins	PASBAN Executive Committee Meeting	

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DAY 2

19th October, 2024



Ibne-Sina Session: PUSHING THE BOUNDARIES 1

Chair: Prof. Dr. Suhail Qureshi **Co-Chair:** Dr Touqeer
Moderator: Dr. Suleman Shahid

Time	Duration	Speaker	Title
02:05 pm - 02:20 pm	15 mins	Basma Ali Harvard Medical School & SBA School of Science & Engineering, LUMS, Lahore	Featured Talk Mobile phone as your Health Companion
02:20 pm - 02:35 pm	15 mins	Hassan Mohyuddin Syed Babar Ali School of Science and Engineering, LUMS, Lahore	Featured Talk The RANO-AI Program. Radiomics and Radiogenomics in Neuro-oncology
02:35 pm - 02:50 pm	15 mins	Rabeet Tariq Section of Neurosurgery, Department of Surgery, AKU Hospital, Karachi	Featured Talk Brain State Theory as a Better Model for the "Non-eloquent" Brain
02:50 pm - 03:35 pm	45 mins	Graham Leon Collingridge, CBE, FRS Lunenfeld-Tanenbaum Research Institute Mount Sinai Hospital, University of Toronto	Plenary Talk Synaptic Plasticity
03:35 pm - 03:43 pm	08 mins	Andaleeb Sahar Air University, Islamabad	Neural Correlates of Word Processing in Down's Syndrome: An fNIRS-Based Neurolinguistic Study
03:43 pm - 03:51 pm	08 mins	Ayesha Ikhtlaq NED University, Karachi	The intelligent heart
03:51 pm - 03:59 pm	08 mins	Syed Arif Kamal University of Karachi, Karachi	Physics and Mathematics of Brain Death Visualized through Group Structure of the Covariant-Enhanced-Coupling Model
03:59 pm - 04:07 pm	08 mins	Hamza Shabbir Minhas Air University, Islamabad	Brain-Computer Interface for Knee Movement: An fNIRS-Based Motor Imagery Study
04:07 pm - 04:15 pm	10 mins	Question & Answer and Souvenir Distribution	
04:15 pm - 04:35 pm	20 mins	Tea & Networking	

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Al-Balkhi Session: NEUROBIOLOGY



Chair: Dr. Basma Ali **Co-Chair:** Dr. Sonia Siddiqui
Moderator: Dr. Shamoos Saqib

Time	Duration	Speaker	Title
04:35 pm - 04:50 pm	15 mins	Dr Fazal Manzoor Arain Department of Biological and Biomedical Sciences, The Aga Khan University, Karachi	Featured Talk Central role of Respiratory system in SUDEP
04:50 pm - 05:05 pm	15 mins	Dr. Huma Batool Department of English, Air University, Islamabad.	Featured Talk Neurolinguistic Insights for Neuropharmacology in Neurodevelopmental/Neurological Disorders
05:05 pm - 05:20 pm	15 mins	Dr. Touqeer Ahmed Atta-ur-Rahman School of Applied Biosciences, NUST, Islamabad	Featured Talk Neurobiological basis of self-recovery after metal neurotoxicity.
05:20 pm - 05:28 pm	08 mins	Kamillia June Kasbi Sussex University, UK	The importance of stress granules as a trigger for neurodegenerative diseases
05:28 pm - 05:36 pm	08 mins	Soma Vankwani Dr. Panjwani Center for Molec Med and Drug Res, ICCBS, UoK, Karachi	Exploring Serum Proteomics in Young Pakistani Patients with Intellectual Disability: Dysregulated Complement, Coagulation & Cholesterol Pathways
05:36 pm - 05:45 pm	09 mins	Question & Answer and Souvenir Distribution	
05:45 pm - 06:00 pm	15 mins	Group Photograph	

07:00 pm - 10:00 pm	03 hours	History by Night Tour of the inner city of Lahore Book here: [Click here]
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History By Night

INTRODUCING THE THRILLING SOCIAL EVENT FOR THE 10TH ANG!!

Attractions:

- Magnificent Huzoori Bagh
- Grand Badshahi Mosque
- Grand Lahore Fort
- Guarded Samadhi Maharaja Ranjeet Singh

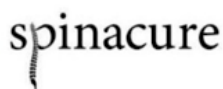
SELF SPONSORED Register Now!

Date: 19 Oct, 2024
from 7.30pm to 9.30pm

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<https://walledcitylahore.gov.pk/book-tours/history-by-night/>

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DAY 3

20th October, 2024



Ibn Al-Haytham Session: BEHAVIORAL NEUROSCIENCE 2



Chair: Prof. Dr. Samina Malik

Co-Chair: Dr. Ghulam Hussain

Moderator: Dr. Agha Ali Raza

Time	Duration	Speaker	Title
09:30 am - 09:35 am	05 mins	Tilawat-e-Qur'an	
09:35 am - 09:43 am	08 mins	Tehreem Sarfraz Centre for Clinical Psychology University of the Punjab, Lahore	Exploring the Protective Factors for Cognitive Functioning among Middle-Aged Adults
09:43 am - 09:51 am	08 mins	Mryam Ali Department of Psychology University of Toronto, Canada	Symptomatology-Driven PTSD Subtypes Show Specific Neural Oscillatory Signatures Using Magnetoencephalography (MEG)
09:51 am - 09:59 am	08 mins	Asma Ahmed Rawalpindi Medical University	Strength in silence: the journey of mothers raising children with hydrocephalus
09:59 am - 10:07 am	08 mins	Maryam Tariq Aziz Fatima Medical and Dental College, Faisalabad	Association of Nomophobia with Social Interaction Anxiety: A Correlational Study
10:07 am - 10:15 am	08 mins	Ramsha Alam Malir University of Science and Technology, Karachi	Combined Caloric Restriction and Biofeedback Enhance Psychological and Metabolic Health in Overweight Women: A Study from Karachi
10:15 am - 10:23 am	08 mins	Maryam Tariq Aziz Fatima Medical and Dental College, Faisalabad	Anxiety & Coping Mechanisms among Engineering & Medical Students: A Comparative Study
10:23 am - 10:31 am	08 mins	Ujala Sajid Malir University of Science and Technology, Karachi	Efficacy of Cognitive Behavioral Therapy vs Stress Education for the Treatment of Generalized Anxiety; A Randomized Clinical Trial
10:31 am - 10:39 am	08 mins	Yusra Saleem Malir University of Science and Technology, Karachi	Exploring the Impact of Different Yoga Practices on Psychological Resources and Emotional Wellbeing: A Single-Session Study
10:39 am - 10:47 am	08 mins	Marwa Farzand Aziz Fatima Medical and Dental College, Faisalabad	Association of sleep quality with sleep paralysis among medical students: A correlational study
10:47 am - 10:55 am	08 mins	Syeda Farah Batool Malir University of Science and Technology, Karachi	Heart Rate Variability Biofeedback (HRVB) Intervention on the Reduction of Psychological Stress During the Early Postpartum Period
10:55 am - 11:05 am	10 mins	Question & Answer and Souvenir Distribution	
11:05 am - 11:25 am	20 mins	Tea & Networking	

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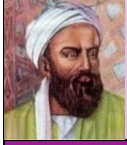
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DAY 3

20th October, 2024



Al-Beruni Session: Neuropharmacology 1



Chair: Dr. Touqeer Ahmed **Co-Chair:** Dr. Ghulam Hussain
Moderator: Yusra Saleem

Time	Duration	Speaker	Title
11:25 am - 11:45 am	20 mins	Prof. Dr. Sonia Siddiqui Dow University of Health Sciences Karachi	Featured Talk Exploring New Frontiers in Therapeutic Drug Development: Uncovering Novel Targets
11:45 pm - 12:00 pm	15 mins	Dr. Ghulam Hussain Government College University Faisalabad	Featured Talk Can we accelerate Peripheral Nerve Repair and Muscle Function Restoration after Traumatic Injury? Natural Molecules as a Ray of Hope
12:00 pm - 12:08 pm	08 mins	Dr. Muhammad Rizwan Alam Department of Biochemistry Quaid-e-Azam University, Islamabad	Peripheral Matrix Metalloproteinase 8 Correlates with Anxiety
12:08 pm - 12:16 pm	08 mins	Farhan Memon Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro	Nanoparticle Antioxidant Drugs: A Promising Approach to Combat Oxidative Stress in Neurodegenerative Diseases.
12:16 pm - 12:24 pm	08 mins	Amina Asghar Chaudhry Department of Zoology, The Women University Multan	Parkinson's Disease Induced Rat Model Histopathology of Toxicity of Datura Stramonium leaf extract & Rotenone on vital organs
12:24 pm - 12:32 pm	08 mins	Obaid Kazmi Institute of Basic Medical Sciences, Khyber Medical University, Peshawar	Glycine Abrogates Cisplatin-Induced Neuroinflammation & Cognitive Dysfunction In Mice
12:32 pm - 12:40 pm	08 mins	Noor ul Ain Saleem FMH College of Medicine & Dentistry, Lahore	Prevalence of Screen-related Headache and Migraine among Children and Adolescents: A Systematic Review and Single-arm Meta-analysis
12:40 pm - 12:50 pm	10 mins	Question & Answer and Souvenir Distribution	
12:50 pm - 01:50 pm	60 mins	Lunch and Poster Exhibition	

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DAY 3

20th October, 2024



Al-Farabi Session: Pushing the Boundaries 2



Chair: Prof. Dr. Syed Ather Enam **Co-Chair:** Dr Faizan Mirza
Moderator: Dr. Shaper Mirza

Time	Duration	Speaker	Title
01:50 pm - 02:10 pm	20 mins	Dr. Nouman Naseer Air University, Islamabad	Featured Talk Introduction to Brain-computer Interface (BCI) A Mini Seminar
02:10 pm - 02:30 pm	20 mins	Prof. Dr. Intikhab Ulfat University of Karachi, Karachi	Featured Talk Advancing Neuroscience with Synchrotron Radiation: Prospects at SESAME, Jordan
02:30 pm - 02:50 pm	20 mins	Agha Ali Raza Syed Babar Ali School of Science LUMS, Lahore	Featured Talk AI & Synthetic Reality: How Machine Intelligence differs from Human Intelligence!
02:50 pm - 02:58 pm	08 mins	Muhammad Jahangir Department of Physics, Government National College, Karachi	Photon Entanglement and Consciousness
02:58 pm - 03:06 pm	08 mins	Ayesha Saeed National College of Arts (NCA), Lahore	The art of Perception: Exploring the intersection of Art, Aesthetics, Creativity, and Neuroscience
03:06 pm - 03:14 pm	08 mins		Display and Describe: Glass blown models of the Brain in Pâte de Verre
03:14 pm - 03:30 pm	16 mins	Question & Answer and Souvenir Distribution	
03:30 pm - 03:50 pm	20 mins	Tea & Networking	



Brain in Pâte de Verre

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20th October, 2024



Al-Majusi Session: Neuropharmacology 2



Chair: Dr. Farhan Fatehjang

Co-Chair: Dr. Faria Amjad

Moderator: Dr. Amna Liaquat

Time	Duration	Speaker	Title
03:50 am - 04:10 pm	20 mins	Prof. Dr. Farhat Batool University of Karachi, Karachi	Featured Talk Exploring Endocannabinoids in Metabolic Syndrome & Schizophrenia: Advancing Therapeutic Solutions
04:10 pm - 04:18 pm	08 mins	Farzana Iftikhar Department of Zoology, The Women University Multan,	Identification of Solanum Nigrum Phenolic Compounds & Effects on Behavior & Biochemistry of Rotenone Induced Parkinson's Rat Model
04:18 pm - 04:26 pm	08 mins	Rabeet Laeeque Department of Biochemistry, University of Karachi, Karachi	Neuroprotective Effects of Sea Buckthorn in Rats Treated with Low vs High Doses of SSRI Antidepressants
04:26 pm - 04:34 pm	08 mins	Rabia Northwest School of Medicine, Peshawar	Effects of Ethyl Pyruvate in Lipopolysaccharide-Induced Mice Model of Parkinson's Disease
04:34 pm - 04:42 pm	08 mins	Ahad Ali Nazir Rehman Medical College, Peshawar	Comparative Analysis of DEGs in Sporadic and Familial Amyotrophic Lateral Sclerosis for Drug Repurposing Strategies
04:42 pm - 04:50 pm	08 mins	Nazir Ahmad Department of Pharmacology Universitas Gadjah Mada, Indonesia	Combination of red onion, coffee, and white cabbage extracts ameliorates memory function in mice: A natural cognitive enhancer
04:50 pm - 04:58 pm	08 mins	Shazia Perveen Neurobiology, The Women University Multan	Phytochemicals and novel approach toward neuro degenerative diseases and Prostate Cancer
04:58 pm - 05:06 pm	08 mins	Bisma Farooqi Department of Biochemistry, University of Karachi	Combined Therapy of Elaeagnus Umbellata & Beta Agonists in Modulating 2580 Neurotransmission and Neuroinflammation in Obesity.
05:06 pm - 05:14 pm	08 mins	Mamoona Malik Air University, Islamabad	Neural Correlates of Language Impairments in Epilepsy: Implications for Neuropharmacological Interventions
05:14 pm - 05:25 pm	11 mins	Question & Answer and Souvenir Distribution	
05:25 pm - 05:40 pm	15 mins	Closing Ceremony and Souvenir Distribution	

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