POSTER ABSTRACTS

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[P1] The structural revelation of the smallest functional pyruvate kinase from *Entamoeba histolytica*

Pragyan Parimita Rath [1,2], Poonam Kumari[2], Samudrala Gourinath[1]
[1]Jawaharlal Nehru University, New Delhi, India, [2]International Centre for Genetic Engineering and Biotechnology, New Delhi, India

[P2] Unravelling Rho Signalling Pathway in *Entamoeba histolytica*: Focus on Myo1b and its Regulatory Network

Avinash Kumar Gautam [1], Preeti Umarao[2], Samudrala Gourinath[1]
[1]School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [2]Emory University, Atlanta, USA

[P3] Phytochemical based anti amyloid silver nanoparticles

Om Prakash Mahato, Kailash Pd. Prajapati, Bibin G Anand, Shikha Mittal, M. Ansari, Karunakar Kar
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P4] Interaction of *C. albicans* histone acetyltransferase, Rtt109, with its chaperones Vps75 and Asf1

Simran Sharma, Sneha Sudha Komath, Samudrala Gourinath, Rohini Muthuswami
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P5] Structural and functional analysis of key AAA+ATPase enzymes involved in *M. tuberculosis* ESX-1 secretion system: novel targets for drug developments

Arkita Bandyopadyay, Ramesh Kumar, Ajay K. Saxena
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P6] Aminoacyl-tRNA synthetase: an essential target for drug discovery

Yogavel Manickam, Amit Sharma
Molecular Medicine - Structural Parasitology Group, International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi, India

[P7] The aggregation mechanism of human γD-crystallin at acidic and physiological pH

Indu, Rajesh Mishra
School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P8] Structural and biochemical depiction of malarial Phenylalanine-tRNA synthetases (FRS) with the novel inhibitors.

Nachiappan Mutharasappan, Yogavel Manickam, Jyoti Chhibber-goel, Amit Sharma
Molecular Medicine – Structural Parasitology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi, India

[P9] Targeting Anopheles culicifacies Prolyl-tRNA synthetase using a quinazolinone-based inhibitor for vector control.

Ritu Goswami[1,2], Jyoti Chibber Goel[3], Manickam Yogave[3], Amit Sharma[3]
[1]ICMR-national Institute of Malaria Research(nimr), New Delhi, India, [2]Academy of Scientific and Innovative Research,[3]International Center for Genetic Engineering and Biotechnology, New Delhi, India

[P10] Crosstalk between autophagy and ubiquitin proteasomal system in *Dictyostelium discoideum*

Bhavya Jain, Shweta Saran
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P11] Role of SQSTM1 (p62) in multicellular development of *Dictyostelium discoideum*

Saksham Gautam, Shweta Saran
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P12] The deletion of the two pore calcium channel (tpc2) in *D. discoideum* impacts autophagy, cell proliferation and cell patterning

Ashima Thakur, Shweta Saran
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P13] *Dictyostelium discoideum* as a model system to understand the effect of green tea catechin Epigallocatechin 3-gallate (EGCG)

Afrozi Quaiser, Shweta Saran
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P14] Microbiome Mastery: enhancing mental care through gut health

G. Anshu[1], Meera Indracant[2]
[1]Department of Life Sciences, Malla Reddy University, Hyderabad, India, [2]Department of Medical Biotechnology, Malla Reddy University, Hyderabad, India

[P15] Role of Calcium in regulation of autophagy in non-apoptotic model system *Dictyostelieum discoideum*

Anuranjan Ekka, Nalini Singh, Shweta Saran
School of Life Science, Jawaharlal Nehru University, New Delhi, India

[P16] Design and synthesis of 6-Gingerol-Chitosan Nano delivery System as an oral delivery supplement against Colorectal Cancer (CRC)

Rohini Samadarsi
Department of Biotechnology and Biochemical Engineering, Sree Chitra Thirunal College of Engineering, Thiruvananthapuram, Kerala, India

[P17] Characterization and Inhibition of *Plasmodium falciparum* tRNA Splicing Endonuclease as a Novel Antimalarial Strategy

Mukesh Kumar Maurya, Rumaisha Shoaib, Prerna Joshi, Ravi Jain, Jhalak Singhal, Amandeep Kaur Kahlon, Anand Ranganathan, Shailja Singh
Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

[P18] Paclitaxel and Fisetin loaded RBC-PCL Biomimetic Nanoformulation as Advanced Chemotherapeutic Agent

Shivani Bhati, Jaydeep Bhattacharya
School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P19] GW5074 shows inhibitory effects on the growth of cervical cancer cell line HeLa

Sangeeta Kumari, Neelima Mondal
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P20] Hemoglobin-Loaded Nanoparticles: Targeted Oxygen Delivery for Hypoxic Tumor Therapy and Overcoming Chemoresistance

Harsh A. Gandhi, Jaydeep Bhattacharya
Nanobiotechnology Laboratory, School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P21] Therapeutic Potential of phytochemicals (Galangin and Caffeic acid) as Inhibitors of Methylglyoxal Derived Advanced Glycation End Products

Nupur Kanojia, Astha Chaubey, A B Tiku
Radiation and Cancer therapeutics Lab, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P22] Hyperthermia-induced cellular responses in normal and cancer cells for therapeutics

Pragati Singh, Mahesh Kaushik, Dr. Ashu Bhan Tiku
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P23] Effect of small molecule K1 in tamoxifen-resistant cell line

Santhipriya P R[1], Azhar Tariq Khan[2], Nasimul Hoda[2], Neelima Mondal[1]
[1]School of Lifesciences, Jawaharlal Nehru University, New Delhi, India, [2]Department of Chemistry, Jamia Millia Islamia, New Delhi, India

[P24] Unleashing hope the power of new cancer therapeutics strategies

V. Gayathri [1], Meera Indracanti [2]
[1]Department of Life Sciences, Malla Reddy University, [2]Department of Medical Biotechnology, Malla Reddy University, India

[P25] Anti-tumor activity of *Mycobacterium indicus pranii* (MIP) involves B cell immune response

Bharati Swami, Sangeeta Bhaskar, Santiswarup Singha
National Institute of Immunology, New Delhi, India

[P26] Development of potential inhibitors against drug target PDK1 involved in cancer

Joyjit Roy, Neelima Mondal
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P27] Role of non-coding RNAs in oral cancer

Kanoujiya Supriya Nandlal, Pooja Kumari, Virendra Singh
Cancer Genomics Laboratory, School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P28] Berberine enhances the radiosensitivity of head and neck squamous cell carcinoma cells

Deepali Mishra[1], Aishwarya Jaiswal[1], Navnendra Singh[1,4], Rana P. Singh[1,2,3]
[1]Laboratory of Cancer Biology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India,
[2]Concurrent Professor, Special Centre for Systems Medicine, Jawaharlal Nehru University, New Delhi,[3]Adjunct Professor Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado, Denver, USA, [4]Department of Biochemistry, School of Chemical and Life Sciences, Jamia Hamdard, New Delhi, India

[P29] Small molecule HER2 inhibitor NSC51254 as a potential anticancer agent
Vikas[1], Neelima Mondal[1], Naidu Subbarao[2]
[1]School of Life Sciences, Jawaharlal Nehru University, [2]School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India
Email: vikasbeniwal39@gmail.com

[P30] MEK inhibition by cobimetinib causes suppression of p-ERK and DNA damage in gastric cancer
Rodu James Ls, Neelima Mondal
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P31] Identification of dysregulated non-coding RNAs in Breast Cancer
Pooja Kumari, Kanoujiya Supriya Nandlal, Virendra Singh
Cancer Genomics Laboratory, School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P32] Activation patterns of engram cells in the dorsal and ventral hippocampus after contextual fear conditioning
Yogendra Kumar, Sushil K Jha
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P33] MST1 inhibition via pharmacological inhibitor Xmu-mp-1 protects against Alzheimer's disease in a rat model of sporadic Alzheimer's disease: insights from behavioral to molecular level
Manas Ranjan Sahu, Amal Chandra Mondal
School of Life Sciences, Jawaharlal Nehru University, New Delhi

[P34] Exploring Gene Regulation and Electro-Behavioral Alterations in Pilocarpine-Induced Epilepsy in Rats
Jyoti Tyagi, Shewta Saran, Deepak Sharma
Neurobiology Laboratory, Jawaharlal Nehru University, New Delhi, India

[P35] Graphene Quantum dots based biosensor for Alzheimer diagnosis
Ashish Tiwari, P J John, Naresh Kumar Nirmal
Department of Zoology, University of Rajasthan, Jaipur, India

[P36] Deciphering the intricate mechanism of platelet dysfunction in Parkinson's disease: an in vitro study

Samir Kumar Beura, Pooja Yadav, Abhishek Ramachandra Panigrahi, Sunil Kumar Singh
Department of Zoology, School of Basic Sciences, Central University of Punjab, Bathinda, Punjab, India

[P37] Comparative studies on immunodulatory property of colostrinin (proline rich peptides) isolated from colostrum of different breeds of cattle, in mice and rat model.

Usha Devi [1], Vivek Kumavat[2], Shaik Abdul Hussain[2] , Sathish Kumar[2], Rajeev Kapila[1] , Suman Kapila [1]
[1]Animal Biochemistry, National Diary Research Institutes, Karnal, Haryana, [2]Dairy Technology Section, National Diary Research Institutes, Karnal, Haryana, India

[P38] Host innate immune cell interactions indicate decreased virulence of a vaccine candidate for protection from leishmaniasis

Surbhi Badhwar[1], Rahul Srivastava[1], Mirza Adil Beg[2], Angamuthu Selvapandiyan[2], Niti Puri[1]
[1]Cellular and Molecular Immunology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [2]Department of Molecular Medicine, Jamia Hamdard, New Delhi, India

[P39] *P. aeruginosa* Outer Membrane Vesicles (OMVs) dysregulate innate immune responses in human lung alveolar macrophages and pneumocytes.

Priyakshi Gogoi, Ambalika Roy, Krishnaraj. S, Dipankar Ghosh
Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

[P40] Serological responses against plasmodium vivax circumsporozoite protein (PvCSP) from three geographically diverse malaria endemic regions of India

Vikas Kumar[1], Kapil Vashisht[1], Rahul Pasupureddy[1], Rajendra Kumar Baharia[1,2], Kailash Chand Pandey[1,2]
[1]ICMR- National Institute of Malaria Research,[2]Academy of Science and Innovative Research

[P41] Impact of SNAP-23 Dynamic Phosphorylation on Mast Cell Exocytosis During Allergen Challenges

Mohd Suleman[1], Suchhanda Agasti[2], Pieu Naskar[1], Niti Puri[1]
[1]Jawaharlal Nehru University, New Delhi, India, [2]National Institute of Health, USA

[P42] Microparticles are involved in the pathogenesis of Japanese encephalitis virus infection

Anjali Singh, Alok Kumar
Department of Molecular Medicine and Biotechnology, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Uttar Pradesh, India

[P43] Elucidating the concept of Trained immunity in mast cells due to previous pathogen or allergen challenge

Kaviraj, Niti Puri
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P44] Developmental dynamics of nuclear matrix DNA regulates gene expression in posterior silk glands of *Bombyx mori*

Anitha Mamillapalli
Department of Biotechnology, Gitam (deemed To Be University)

[P45] Differential expression of microRNAs in small intestinal biopsies of seropositive and seronegative HLA-DQ2/DQ8 positive First-degree Relatives of patients with Celiac Disease

Muzafar Ahmad [1,2], Govind K. mukharia[3], Azka Khan[4], Lalita Mehra[5], Gupta R[6], Baibaswata Nayak[7], Rohan Malik[8], Dibyabhaba Pradhan[9], Syed Akhtar Husain[10], Prasenjit Das[11]
[1]Department of Pathology AIIMS, New Delhi, [2]Department of Biosciences Jamia Millia Islamia New Delhi, [3]Department of Gastroenterology and Human Nutrition , AIIMS, New Delhi, [4]Genomic Lab Institute of Genomics and Integrative Biology New Delhi, [5]Department of Pathology AIIMS, New Delhi, [6]Department of Laboratory Oncology, AIIMS, New Delhi, [7]Department of Gastroenterology and Human Nutrition , AIIMS, New Delhi, [8]Department of Paediatrics, AIIMS, New Delhi, [9]Bioinformatics, Centralized Core Research Facility, AIIMS, New Delhi, [10]Department of Biosciences, Jamia Millia Islamia, New Delhi, [11]Department of Pathology AIIMS, New Delhi, India

[P46] To understand the transcriptional regulation mediated by PICH, Nrf2 and Lamin A/C in response to oxidative stress.

Rajan Kushwaha, Rohini Muthuswami
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P47] An interplay between DOT1L and HDAC1 in regulating the dynamics of the host's chromatin during host-pathogen interaction.

Akanksha Kanojia, Gargi Roy, Rentala Madhubala, Rohini Muthuswami
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P48] Role of Snf2 in regulating DNA damage response pathway in *C.albicans*

Sanju Rani Barik, Rohini Muthuswami
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P49] ODC1 overexpression mitigates metabolic stress under in vitro glucotoxicity conditions

Neha Dahiya, Manpreet Kaur, Varsha Singh
Centre For Life Sciences, Molecular Biology & Bioinformatics Division, Chitkara University Research and Innovation Network, Chitkara University, Punjab, India

[P50] Histone H3 and H4 acetylation by SAGA and NuA4 controls stress response and filamentation in *Candida albicans*

Priyanka Nagar, Krishnamurthy Natarajan
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P51] Requirements for the heterodimerization of histone H2A- and H2B-like histone fold domain proteins and their integration into SAGA and TFIID

Poonam Poonia, Vidhi Bhardwaj, Krishnamurthy Natarajan
Laboratory of Eukaryotic Gene Regulation, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P52] Identifying circulatory microRNAs as biomarkers in coronary artery disease.

Harshi Gupta[1], Neeru Saini[1,2], Raj Rajeshwar Choudhury[1,2]
[1]Functional Genomics Unit, Institute of Genomics and Integrative Biology, CSIR, Mall Road, Delhi, India, [2]Academy of Scientific and Innovative Research, Ghaziabad, India

[P53] Expression and regulation of LINC-RBE long noncoding RNA in response to Retinoic Acid

Sukhleen Kour, Anita Kumari, Pramod C Rath
School of Life Science, Jawaharlal Nehru University, New Delhi, India

[P54] Expression and localization of LINC-RSAS lncRNA in the rat testis during aging

Ajay Kumar Danga, Sukhleen Kour, Pramod C Rath
School of Life Science, Jawaharlal Nehru University, New Delhi, India

[P55] Redox regulation of Mo and Sb toxicity in Triticum aestivum by silicon nanoparticles

Mohammad Mukarram[1,2], Biljana Kukavica[1], Alexander Lux[3,4]
[1]Department of Biology, Faculty of Natural Sciences and Mathematics, University of Banja Luka, Banja Luka 78000, Bosnia and Herzegovina, [2]Department of Phytology, Faculty of Forestry, Technical University In Zvolen, Zvolen 96001, Slovakia,[3]Department of Plant Physiology, Faculty of Natural Sciences, Comenius University In Bratislava, Ilkovicova, [6]Bratislava, Slovakia,[4]Institute of Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia

[P56] Antioxidant and Antimicrobial Assay of Aqueous Extract of Diverse Plant Species

Snigdha Gautam, Sheela Chandra
Birla Institute of Technology, Mesra, Ranchi, India

[P57] JA signaling tunes root growth during ammonium stress by modulating iron balance in Arabidopsis

Anshika Pandey, Amar Pal Singh
National Institute of Plant Genome Research, New Delhi, India

[P58] Indigenous rhizobacteria associated with Black scented rice plant (Chakhao) as potential plant growth stimulators and biocontrol agents

Menaka Devi Salam, Sushma Khaidem, Ajit Varma, Debananda S Ningthoujam
Amity Institute of Microbial Technology, Amity University Uttar Pradesh, Noida, Uttar Pradesh, India

[P59] A rhizobial core-genome encoded peptidase alters the symbiotic outcome with *Medicago truncatula*

Prithwi Ghosh [1,2], Alex B. Benedict [1], Joel S. Griffitts [1]
[1]Department of Micro and Molecular Biology, Brigham Young University, Provo, Utah, 84602, USA, [2]Department of Botany, Narajole Raj College, Vidyasagar University, Midnapore, India

[P60] Enhancing drought resilience and root architecture in Indian mustard (*Brassica juncea L.*) through root-specific cytokinin reduction

Aniruddhabhai Khuman , Bhupendra Chaudhary
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P61] Beneath the Soil, Beyond the Roots: Unleashing microbial secondary metabolites for plant disease management

Tanushree Borgohain, Aiswarya Baruah, Madhumita Barooah, Robin Chandra Boro
Assam Agricultural University, Jorhat, India

[P62] Phytochemical profiling of withaferin-A from methanolic root extract of *Withania somnifera* by analytical method HPTLC and determination of cytotoxicity on human breast cancer cell line

Anni
Department of Botany, Patliputra University, Patna, India

[P63] Uncovering nitrogen responsive miRNAs and their role in chili (*Capsicum sp.*)

Shabari Sarkar Das, Nirala Ramchiary
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P64] A pan-genome survey of GLYI and GLYII proteins across wild and cultivated rice varieties provides crucial insights into their evolution and role in stress tolerance

Bidisha Bhowal [1 2], Yasha Hasija[2], Sneh L Singla-pareek[1]
[1]Plant Stress Biology Group, International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi, India, [2]Systems and Genome Informatics Lab, Delhi Technological University, Shahbad, Daulatpur, Bawana Road, New Delhi, India

[P65] Interconnection between heat and pathogen stress responses in plants

Anand Nishad, Ashis K Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P66] RBOH-dependent ROS synthesis modulates growth, development, and abiotic stress tolerance in rice

Nishtha Rawat[1], Sneh Lata Singla-pareek[3], Ashwani Pareek[1, 2]
[1]Jawaharlal Nehru University, New Delhi, India, [2]National Agri-food Biotechnology Institute, [3]International Centre for Genetic Engineering and Biotechnology, New Delhi, India

[P67] Elucidating the role of response regulators in rice towards abiotic stress tolerance

Siddhi Parab[1], Sneh Lata Singla-Pareek[2] and Ashwani Pareek[1,3*]
[1]Stress Physiology and Molecular Biology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [2]Plant Stress Biology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi, India, [3]National Agri-Food Biotechnology Institute, Sahibzada Ajit Singh Nagar, Punjab, India

[P68] miRNA159b epigenetic target of FLD negatively regulates immunity in *Arabidopsis thaliana*

Ranjan Kumar, Sujata Kaushik, Deepjyoti Singh, Vijayata Singh, Ashis Kumar Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P69] Role of AtOZF1 in SA-JA crosstalk for defense response regulation in *Arabidopsis thaliana*

Reena Saini, Nidhi Singh, Ashis Kumar Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P70] Molecular regulators underlying the high temperature responsive growth in rice

Archita Singh[1], Pooja[1], Manobika Das[1], Vandna Rai[2], Ananda K. Sarkar[1]
[1]School of Life Sciences, Jawaharlal Nehru University,[2]National Institute for Plant Biotechnology, Lbs Centre, Pusa, New Delhi, India

[P71] Identification and characterization of rhizospheric bacteria with potential to promote growth in rice

Kaushik Saha, Pradeep Papolu, Ananda K. Sarkar
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P72] A virus induced Glycine rich protein (GRP) confers tolerance to begomovirus-betasatelite complex through its C-terminal domain

Dibyendu Ghosh, Ragunathan Devendran, Supriya Chakraborty
Molecular Virology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P73] AtOZF1 positively regulates NPR1-independent SA signaling and Systemic Acquired Resistance in Arabidopsis

Akash Sharma, Anupriya Singh,Nidhi Singh, Ashis Kumar Nandi
School of Life Sciences, Jawaharlal Nehru Universty, New Delhi, India

[P74] Omics-assisted identification and fine mapping of the loci governing resistance in chickpea against ascochyta blight

Kamal Kumar[1], Savithri Purayannur[2] , Ritu Singh[2], Anubhav Sahu[3], Chellapilla Bharadwaj[4], Praveen Kumar Verma[3]
[1]Department of Plant Molecular Biology, University of Delhi, South Campus, New Delhi, [2] National institute of plant genome research , New Delhi, India,[3]School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [4]Division of Genetics, Indian agriculture research institute

[P75] LDL2 and PAO5 Regulate Systemic Acquired Resistance in Association with Polyamine Metabolism in *Arabidopsis thaliana*

Shobhita Saxena, Mir Nasir, Ashis K Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P76] Synergistic role of TrAP and βC1 proteins in begomovirus-betasatellite mediated pathogenesis

Neha Gupta, Shirin Sultana, Sunil Kumar, Supriya Chakraborty
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P77] Investigating the complex interactions between the two-component system (TCS) proteins in rice under salinity stress

Anjali Shailani [1], Sneh L. Singla-pareek[2], Ashwani Pareek[1 2]
[1]Stress Physiology and Molecular Biology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [2]Plant Stress Biology, International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Road, New Delhi, India

[P78] Polycomb-group repressor MEDEA in local and systemic acquired resistance

Sonia Rani, Priya Gupta, Shweta Roy, Ashis K Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P79] Mechanism of RSI1 Activation during Systemic Acquired Resistance in *Arabidopsis*

Uday Singh, Vishal Patil, Ashis Kumar Nandi
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P80] Determination of antibiotic resistance in the environmental Gram negative bacteria

Durgesh Kumar, Arun S Kharat
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P81] Exploring the potential of conserved immune response genes in mitigating human tau-mediated neurotoxicity in Drosophila disease models

Prerna Aggarwal, Surajit Sarkar
Department of Genetics, University of Delhi, South Campus, Benito Juarez Road, New Delhi, India

[P82] Identification of potential key genes in triple negative breast cancer with gene expression, key pathways and regulatory network analysis using systems biological approach

Alok Kumar[1], Md. Zubbair Malik[2], Mohammad Dashti[2], Thangavel Alphonse Thanaraj[2], Maitreyi S Rajala[1], Naidu Subbarao[3]
[1]School of Biotechnology, Jawaharlal Nehru University, New Delhi, India. [2]Department of Genetics and Bioinformatics, Dasman Diabetes Institute, Kuwait City, Kuwait. [3]School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India

[P83] Discovery of novel interacting partner of *Plasmodium falciparum* prohibtins for antimalarial therapeutic development

Manisha Marothia[1], Ankita Behl[1], Preeti Maurya[1], Monika Saini[1], Swati Garg[1], Geeta Kumari[1], Shreeja Biswas[1], Rumaisha[1], Akshay Munjal[1], Sakshi Anand[1], Amandeep Kaur Kahlon[1], Prince Upadhyay[2], Pragya Gupta[3], Saurav Biswas[4], Bidhan Goswami[5], Ipshita Pal Bhowmick[4], Soumya Pati[2], Maxim Shevtsov[6], Sivaprakash Ramalingam[3], Anand Ranganathan[1], Shailja Singh[1]

[1]School of molecular medicine, Jawaharlal Nehru University, New Delhi, India, [2]Shiv Nadar University, [3]CSIR, Institute of genomics and Integrative Biology, New-Delhi, India, [5]Agartala Medical College, [6]Technical University of Munich, Germany

[P84] A Tau-specific kinase inhibitor (TSKI-1) restricts pathogenesis of human tauopathies in Drosophila disease models

Barasa Rani Kalita, Surajit Sarkar

Department of Genetics, University of Delhi, South Campus, Benito Juarez Road, New Delhi, India

[P85] Foot-and-mouth disease transmission dynamics among wildlife-domestic interfaces of India

Shubani Kumari

Center For Molecular Biology, Central University of Jammu, India

[P86] Mechanistic understanding of *Mycobacterium tuberculosis* of hepatocytes

Binayak Sarkar, Rajesh S. Gokhale

National Institute of Immunology, New Delhi, India

[P87] A comprehensive study of disease-inflicting SNP variants of thyroid hormone receptor beta

Ghausiya Rehman, Jyoti Kashyap, Sheeba Rizvi, Rakesh K. Tyagi

Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

[P88] TCTP (Translationally Controlled Tumor Protein) negatively regulates autophagy in *Dictyostelium discoideum*

Chanchal Choudhry, Shweta Saran

School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P89] The NRF2 antioxidant system and its involvement in concurrent hyperglycemia and stress in the adult zebrafish brain

Rhea Subba, Amal Chandra Mondal

Laboratory of Cellular and Molecular Neurobiology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.

[P90] Biochemical and Functional Characterization of PfWLM

Risha Shameem, Abhisheka Bansal

School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P91] Antibiofilm and anti-inflammatory activities of quercetin loaded natural deep eutectic solvents (NADES) against MDR *Pseudomonas aeruginosa*
Krishnaraj S, Dipankar Ghosh, Priyakshi Gogoi, Ambalika Roy
Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

[P92] Studies on Leishmania specific Threonine synthase enzyme
Zulfa Nasir, Chandan Kumar Malik, Sushma Singh
National Institute of Pharmaceutical Education and Research, Sas Nagar, India

[P93] Unraveling the Mechanistic Role of Desmoplakin (DSP) in Pulmonary Fibrosis: Implications for Wnt/β-Catenin Signaling

Pooja Singh, Ritushree Kukreti
CSIR-Institute of Genomics and Integrative Biology, New Delhi, India

[P94] Developing a combinatorial approach to achieve a near-complete rescue against human poly(Q) toxicity in Drosophila disease models
Aparajita Sen, Surajit Sarkar
Department of Genetics, University of Delhi, India

[P95] *Convolvulus pluricaulis* mediates its pharmacological effects via superoxide dismutase and ascorbate transporter orthologues in *Drosophila melanogaster*
Shreyasi Mitra, Amit Kumar, Manish Pandey, Geetanjali Chawla
Department of Life Sciences, Shiv Nadar Institute of Eminence, India

[P96] Exploring novel signaling pathways involved in egress of malaria parasite *Plasmodium falciparum* using genome editing tool
Himashree Choudhury, Abhisheka Bansal
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P97] A cub and sushi domain containing protein with esterase like activity confer insecticide resistance in Indian malaria vector- *Anopheles stephensi*
Jatin Kumar[1,2], Ankit Kumar[3], Yash Gupta[4] , Kapil Vashisht[1], Arvind Sharma[1], Raj Kumar[5], Om Prakash Singh[1], Shailja Singh[5,] Soumyananda Chakraborti[1,2], Sujatha Sunil[3], Kailash Chand Pandey[1,2]
[1]ICMR-National Institute of Malaria Research, [2]Academy of Scientific and Innovative Research, [3]International Centre for Genetic Engineering and Biotechnology, [4]Department of Medicine, Penn State College of Medicine, Hershey, [5]Jawaharlal Nehru University, New Delhi, India.

[P98] Genomic and proteomic analysis of subspecies of *Anopheles culicifacies*; Decoding the mechanism of refractoriness
Soumya Ranjan Pradhan[1,2], Kailash C Pandey[1,2], Rajendra K Baharia[1,2], Kapil Vashisht[1], Jatin Kumar[1,2]
[1]Indian Council of Medical Research- National Institute of Malaria Research, [2]Academy of Scientific and Innovative Research, India

[P99] A MerR protein based electrochemical sensor for ultrasensitive detection of mercury ions

Ayushi Tanwar, Jaydeep Bhattacharya
School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P100] Rapid depletion strategy for functional genomics studies in the human fungal pathogen *Candida albicans*

Basharat Bashir Teli, Priyanka Nagar, Yumnam Priyadarshini, Poonam Poonia and Krishnamurthy Natarajan
Laboratory of Eukaryotic Gene regulation, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P101] Phenotypic characterization of *C. albicans* mutants of GPI17, a gene encoding one of the subunits of GPI transamidase

Isaac Cherian, Sonali Singh, Sneha Sudha Komath
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P102] Studying the interaction of GPI biosynthesis with Ras signaling in *Candida albicans*

Harshita Saini, Anshuman, Sneha Sudha Komath
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P103] Mycodiversity Observed in Edible Mushrooms in the Wilderness of the Tropical State of Jharkhand

Kaushiki Bhattacharya, Ramesh Chandra
Birla Institute of Technology, Mesra, India

[P104] Impact of adaptation to ER stress on biology of *Candida albicans*

Pritam Kumar, Sneh Lata Panwar
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P105] Investigate the interaction of Arv1 (Acyl-CoA acyltransferase-related enzyme 2 required for viability) with first step of GPI biosynthesis in *Candida albicans*

Monika Bharati, Neha Thakran, Sneha Sudha Komath
School of Life Sciences, Jawaharlal Nehru University, New Delhi, India

[P106] Sphingolipid profiling of *Candida auris* reveals clade and resistance specific imprints

Basharat Ali[1,2], Mohit Kumar[1 3], Praveen Kumar[1], Anshu Chauhan[1], Sana Akhtar Usmani[4], Shivaprakash M. Rudramurthy[5], Jacques F. Meis[6], Arunaloke Chakrabarti[5], Ashutosh Singh[4], Naseem A. Gaur[3], Alok K. Mondal[2], Rajendra Prasad[1]
[1]Amity Institute of Integrative Science and Health and Amity Institute of Biotechnology, Amity University Gurgaon, Haryana, India, [2]School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [3]Yeast Biofuel Group, International Centre for Genetic Engineering and Biotechnology, New Delhi, India, [4]Department of Biochemistry, University of Lucknow, Lucknow, India, [5]Postgraduate Institute of Medical Education & Research, Chandigarh, India, [6]Institute of Translational Research, Cologne Excellence Cluster On Cellular Stress Responses In Aging-associated Diseases and Excellence Center For Medical Mycology, University of Cologne, Cologne, Germany

[P107] F-Bar Protein: A Quantum Leap Module for Fungal Virulence

Ankita Shree, Praveen K. Verma
School of Life Sciences, Jawaharlal Nehru University, New Delhi

[P108] A meta-analysis of legume microbiome reveals marker bacteria at different stages of host development

Rishav Sahil, Mukesh Jain
School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India

[P109] Structural modelling of mitochondrial ATAD3 protein from human parasitic nematode *Strongyloides stercoralis*

Sudhir Kumar, Lokesh Kumar
Department of Biotechnology, H.N.B Garhwal University, Srinagar Garhwal, Uttarakhand, India

[P110] Exploring *Dictyostelium discoideum* model to characterize *Plasmodium falciparum* key genes to combat malaria

Shivam Nanda [1], Rajan Pandey[2], Rahila Sardar[2], Ashutosh Panda[2], Aruna Naorem[1], Dinesh Gupta[2], Pawan Malhotra[2]
[1]Department of Genetics, University of Delhi, [2]International Centre for Genetic Engineering and Biotechnology, New Delhi, India

[P111] Comparative analysis of stochastic neurodynamics in neuro-typical and neuro-divergent brains.

Shyam Kumar, Preet Mishra, R. K. Brojen Singh
School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India

[P112] Unravelling the functional cross-talk of *Mycobacterium tuberculosis* NAD Kinase (Rv1695) with virulence-associated and host proteins: computational and in vitro high-throughput screening for the development of chemotherapeutics

Amandeep Kaur Kahlon[1], Mukesh Kumar Maurya[1] , Sudeep Roy[2], Shailja Singh[1], Anand Ranganathan[1]
[1]Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India, [2]Department of Biomedical Engineering, Brno University of Technology, Brno-61200, Czech Republic

[P113] DystoGen Database: A comprehensive collection of genetic variants linked to movement disorders, annotated in accordance with ACMG standards.

Bhaskar Jyoti Saikia[1,2], Utkarsh Gaharwar[1,2], Kavita Pandhare[1,2], Vinod Scaria[1,2], Binukumar Bk [1,2]
[1]Csir Institute of Genomics and Integrative Biology, Mall Road, New Delhi, [2]Academy of Scientific and Innovative Research, Ghaziabad, Uttar Pradesh, India.

[P114] Computational prediction model to calculate the binding affinity of Ca^{2+} ion binding to calcium binding proteins: decoding structure-function relationships

Pooja, Pradipta Bandyopadhyay
School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India

[P115] On topologies of stochastic Reaction-Diffusion mediated gene genealogies in finite populations

Preet Mishra, R. K. Brojen Singh
School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, India

[P116] Unique Role of Arginine Decarboxylase (HpSpeA) in Human Gastric Pathogen *Helicobacter pylori*

Fatima Akhtar, Suman Kumar Dhar
Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

[P117] Synthesis of biodegradable composite scaffold/hydrogel fortified with zinc silicate for bone tissue engineering

Farzana Naushin, Ajita Jindal, Sheikh Nisar Ali, Jaydeep Bhattacharya
School of Biotechnology, Jawaharlal Nehru University, New Delhi, India

[P118] Nanocomposite-based enzymatic detection of triglycerides

Mahadevan B Iyer, Soham Chattopadhyay
Department of Bioengineering and Biotechnology, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India

[P119] SPy_2191 adjuvated with alum, a novel vaccine formulation against group A *Streptococcus*

Pooja Mahajan[1], Rupesh Aggarwal[1], Meenakshi Dua[2], Atul Kumar Johri[1]
[1]School of Life Sciences, [2]School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India.

[P120] Seipin transmembrane domains are necessary and sufficient to create functional ER sites of lipid droplet biogenesis

Amit Khatri, Ritika Chaudhary, R Mankamna Kumari and Vineet Choudhary
Department of Biotechnology, All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India

[P121] Evolutionary conserved fat storage-inducing transmembrane (FITM2) protein is crucial for lipid droplet biogenesis

Akhil Kumar, Vineet Choudhary
Department of Biotechnology, All India Institute of Medical Sciences Ansari Nagar, New Delhi, India

[P122] Climate zones are a key component of the heterogeneous presentation of malaria and should be added as a malariometric for the planning of malaria elimination

Rajit Mullick[1], C.P. Yadav[3], Syed Shah Areeb Hussain[1], Manju Rahi[4], Amit Sharma[2]
[1]Icmr-National Institute of Malaria Research, [2]Interanational Centre for Genetic Engineering and Biotechnology, [3]Indian Council of Medical Research-National Institute of Cancer Prevention and Research, [4] Indian Council of Medical Research-National Institute of Cancer Prevention and Research, India

[P123] Simulated microgravity-induced cellular responses: impacts on DNA damage and apoptotic responses in microglial and glioblastoma cells

Aishwarya Jaiswal[1], Ragini Singh[1], Rana P. Singh[1,2,3]
[1]Cancer Biology Laboratory, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India, [2]Special Centre for Systems Medicine, Jawaharlal Nehru University, New Delhi, India, [3]Department of Pharmaceutical Sciences, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado, Anschutz Medical Campus, Aurora, CO, USA