

## Ongoing Projects under EFB-Biomedical Sciences

SN	PI & Institute Name	Project Title	States
1	Dr. Deepak Modi ICMR-Institute for Research in Reproductive Health (NIRRH), Mumbai	Identification of HOXA10-driven genetic networks in the endometrium	Maharashtra
2	Dr. Rupasri Ain CSIR-Indian Institute of Chemical Biology (IICB), Kolkata	Long non-coding RNA signature and function in trophoblast stem cell differentiation	West Bengal
3	Dr. Sundarasamy Mahalingam Indian Institute of Technology (IIT), Madras	Understanding the Molecular Function of RASSF8 induced Cellular Autophagy during Tumorigenesis	Tamilnadu
4	Dr. Sudhanshu Kumar Shukla Indian Institute of Technology (IIT), Dharwad	Decoding the role of oncofetal LNC RNA LINC01456 in cancer development and its clinical relevance	Karnataka
5	Dr. Kumaravel Somsundaram Indian Institute of Science (IISc), Bangalore	ISWI (Imitation switch) Chromatin Remodeling Complex in cancer: Dissecting the role of Bromodomain Adjacent To Zinc Finger Domain 1A (BAZ1A) and developing targeted therapy	Karnataka
6	Dr. Amit Lahiri CSIR-Central Drug Research Institute (CDRI), Lucknow	Unravelling the crosstalk between mitochondrial dynamics and gut dysbiosis in the pathogenesis of Inflammatory Bowel Disease	Uttar Pradesh
7	Dr. N Ravi Sundersan Indian Institute of Science (IISc), Bangalore	Understanding the role of SIRT2 in the regulation of cardiac lipotoxicity	Karnataka
8	Dr. Debasis Das Tata Institute Of Fundamental Research (TIFR), Mumbai	Investigating the molecular basis of Parkinson's disease (PD) pathology	Maharashtra
9	Dr. Raja Bhattacharya Amity University, Kolkata	Understanding mechanisms of GPCR promiscuity in neuromodulation using Caenorhabditis elegans homologue of cholecystokinin receptor 1 (CKR-1) as a prototype GPCR	West Bengal
10	Dr. Sandip Kumar Nandi Birla Institute of Technology & Science (BITS), Pilani - Goa	DJ-1 in human lens: A therapeutic target to treat presbyopia and cataract	Goa

11	Dr. Chittaranjan S Yajnik King Edward VII Memorial Hospital, Pune	Follow-up of children born in a B12-multimicronutrient supplementation primordial trial (PRIYA) to reduce diabetes risk and improve neurocognitive performance	Maharashtra
12	Dr. Kishore Parsa Dr. Reddy's Institute of Life Sciences, Hyderabad	Understanding the functional significance of RNA exosome complex sub-unit EXOSC1, implicated in the rare disease pontocerebellar hypoplasia, using cellular and zebrafish model systems	Telangana
13	Dr. Giriraj Sahu Indian Institute of Science (IISc), Bangalore	Elucidation of the mechanisms for the inhibition of intrinsic excitability regulator slow afterhyperpolarization in temporal lobe epilepsy	Karnataka
14	Dr. Swagata Ghatak National Institute of Science Education And Research (NISER), Bhubaneswar	Two pore domain leak potassium channel related mechanisms of excitatory-inhibitory imbalance in Alzheimer's disease.	Odisha
15	Dr. Vandana Jain All India Institute of Medical Sciences (AIIMS), New Delhi	Assessing the genesis of the 'thin-fat' Asian Indian phenotype: A longitudinal study on body composition, metabolic and metabolomic profile in children born preterm or small for gestational age	Delhi (UT)
16	Dr. Sunil Martin BRIC-Rajiv Gandhi Centre For Biotechnology (RGCB), Thiruvananthapuram	Augmenting off-the-shelf $\gamma\delta$ T cell therapy in oral squamous cell carcinoma (OSCC) by targeted regulation of EZH2	Kerala
17	Dr. Minu Singh Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Profiling and functional validation of non-annotated microproteins in pediatric acute myeloid leukemia	Haryana
18	Dr. Sreedhar Chinnaswamy BRIC-National Institute of Animal Biotechnology (NIAB), Hyderabad	Functional analysis of a novel human interferon lambda 4 (IFNL4) gene isoform and interrogation of an IFNL4 SNP (rs4803221) for novel functions	Telangana

19	Dr. Jyotirmoy Banarjee All India Institute of Medical Sciences (AIIMS), New Delhi	Deciphering the contribution of proestrous-estrous transition to seizure susceptibility in drug resistant epilepsy pathologies.	Delhi (UT)
20	Dr. Darshee Baxi Gujarat Biotechnology research Centre (GBRC), Gandhinagar	Can $\beta$ -glucan-induced gut microbiome metabolites improve PCOS symptoms? An experimental and clinical study	Gujarat
21	Dr. Amal Kanti Bera Indian Institute of Technology (IIT), Madras	A novel approach of treating GNB1 encephalopathy with GIRK channel modulators and HCA1 receptor agonists	Tamilnadu
22	Dr. Sandeep Singh BRIC-National Institute of Biomedical Genomics (NIBMG), Kalyani	Study on the epigenetic mechanism of JAK-STAT driven plasticity in oral cancer stem cells for its therapeutic value	West Bengal
23	Dr. Sudhakar Baluchamy Pondicherry University, Puducherry	Investigating the role of DNA Methyltransferase 3B long noncoding RNA in the regulation of tumour suppressor genes and glioblastoma cell proliferation.	Puducherry (UT)
24	Dr. Mohit Prasad Indian Institute of Science Education And Research (IISER), Kolkata	Investigating Gap junction Function in Phagoptosis; Lessons from Drosophila egg	West Bengal
25	Dr. Sumit Sen Santara Indian Institute of Science Education And Research (IISER), Kolkata	Development of engineered Natural Killer (NK) cells for adoptiv therapy to achieve in vivo prsistent and efficient killing of target cells -an indigenous approach to treat cancer	West Bengal
26	Dr. Debasree Dutta BRIC-Rajiv Gandhi Centre For Biotechnology (RGCB), Thiruvananthapuram	Centrosome duplication in stem cells- a novel function of histone chaperone APLF in shaping development	Kerala
27	Dr. Rajakumara Eerappa Indian Institute of Technology (IIT), Hyderabad	Mechanistic studies on regulation of poly(ADP-ribose) polymerases 1 activities by non-DNA factors, and PAR mimetics inhibitors design	Telangana

28	Dr. Jonaki Sen Indian Institute of Technology (IIT), Kanpur	Investigating how bone morphogenetic protein (BMP) signaling regulates the balance between proliferation and differentiation of neural progenitor cells in the cortex	Uttar Pradesh
29	Dr. Purusharth I Rajyaguru Indian Institute of Science (IISc), Bangalore	Elucidating the role of low complexity sequences in the disassembly of TDP-43 aggregates	Karnataka
30	Dr. Arshad Ahmad Pandith Sher I Kashmir Institute of Medical Sciences, Srinagar	Impact of Genotypic and phenotypic expression of SLCO1B1 gene on Methotrexate dosage in the outcome of acute lymphoblastic leukemia	Jammu and Kashmir (UT)
31	Dr. Siddhartha Sankar Jana DST-Indian Association For The Cultivation Of Science (IACS), Kolkata	An approach to inhibit cancer cell migration and growth by targeting Nonmuscle myosin II and Topoisomerase I	West Bengal
32	Dr. Jayanta Halder Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR), Bangalore	In-aqueous fabrication of antimicrobial covalent coating on catheters to mitigate catheter-associated urinary tract infections (CAUTIs)	Karnataka
33	Prof. Debrupa Lahiri Indian Institute Of Technology (IIT), Roorkee	Developing magnesium alloy based temporary orthopedic implants coated with hydroxyapatite by plasma-spraying.	Uttar Pradesh
34	Prof. Chandan Mukherjee Indian Institute Of Technology (IIT), Guwahati	Development of organ and functional-specific MRI contrast agents	Assam
35	Dr. Somen Mondal Institute of Chemical Technology (ICT), Mumbai	Conductive free-standing soft biopolymer for bioelectronic devices	Maharashtra
36	Dr. B N Srikumar National Institute of Mental Health & Neuro Sciences (NIMHANS), Bangalore	Elucidating the Neurosteroid and Neuronal Plasticity Mechanisms of Premenstrual Dysphoric Disorder (PMDD) in a Rat Model	Karnataka
37	Dr. Kushaan Khambata ICMR-National Institute for Research in Tuberculosis (NIRT), Chennai	Investigating sperm 5hmC landscape in male infertility and recurrent pregnancy loss	Maharashtra

38	Dr. Souvik Dey Manipal Academy of Higher Education (MAHE), Manipal	Investigation on the Cohesive Roles of Glycogen Synthase Kinase 3 alpha and FTO in Regulation of Mammalian Spermatogenesis	Karnataka
39	Dr. Nagarjun Narayanaswamy BRIC-Rajiv Gandhi Centre For Biotechnology (RGCB), Thiruvananthapuram	Development of new activity-based probes for understanding the role of non-apoptotic cell death pathways	Kerala
40	Prof. Tapas Manna Indian Institute of Science Education and Research (IISER), Thiruvananthapuram	Understanding the role of highly expressed in cancer 1 (Hec1) in controlling expanded organization of kinetochore and its link to mitotic checkpoint signaling	Kerala
41	Dr. Dibyendu Samanta Indian Institute of Technology (IIT), Kharagpur	Deciphering the role of a novel interaction between nectin-4 and E-cadherin in tumor development and progression	West Bengal
42	Dr. Devanjan Sinha Banaras Hindu University (BHU), Varanasi	Role of Tim44 in rewiring tumour cell mitochondria to promote cell proliferation and angiogenesis	Uttar Pradesh
43	Dr. Ujjaini Dasgupta Amity University, Haryana	Identification of Bioactive Lipids as a Liquid Biopsy Tool for Early Detection of Hepatocellular Carcinoma (HCC) and Evaluation of the Treatment Response	Haryana
44	Dr. Rakesh Laishram BRIC-Rajiv Gandhi Centre For Biotechnology (RGCB), Thiruvananthapuram	Omics of Preeclampsia associated cardiovascular complications – An RNACentric approach towards molecular understanding	Kerala
45	Dr. Anupam Mittal Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Establishment of novel gene variant for recurrent cardiac myxoma using iPSC derived cardiomyocytes and transgenic murine model	Chandigarh (UT)
46	Dr. Rajesh Ramachandran Indian Institute of Science Education And Research (IISER), Mohali	Exploring the roles of long non-coding RNA malat1 during retina and fin regeneration in zebrafish	Puducherry (UT)
47	Dr. Swadhin Jana National Center for Biological Sciences (NCBS), Bangalore	Mechanistic Insight into Mono-to-Oligogenic Inheritance Patterns in Ciliopathies via Metazoan Models and Mutations in Ciliary Transport Machinery	Karnataka

48	Dr. Anil Kumar Pasupulati University of Hyderabad, Hyderabad	Targeting EMT of Podocytes and Proximal Tubular Epithelial Cells to Combat Diabetic Kidney Disease	Telangana
49	Dr. Yashwant Kumar BRIC-Translational Health Science And Technology Institute (THSTI), Faridabad	Assessing Environmental Chemical Risk Factors for Type 2 Diabetes: A 24-Year Follow-up Cohort Study	Haryana
50	Dr. Pongali Raghavendra BRIC-National Institute of Biomedical Genomics (NIBMG), Kalyani	Understanding the molecular mechanism in ceramide induced pathological activation of nek7/nlrp3 – inflammasome	West Bengal
51	Dr. Vimlesh Kumar Indian Institute of Science Education and Research (IISER), Bhopal	Probing in vivo roles of J-domain and RNA Recognition Motif (RRM)-containing dCwc23 chaperone in neuromorphogenesis and neurodegeneration.	Madhya Pradesh
52	Dr. Mahendran KR BRIC-Rajiv Gandhi Centre For Biotechnology (RGCB), Thiruvananthapuram	Functional membrane-spanning amyloid pores: from structure and assembly to medicine	Kerala
53	Dr. Gireesh Gangadharan Manipal School of Life Sciences, Manipal	Neural circuit mechanism of obsessive-compulsive disorder-like checking behaviour in mice: A study with a special focus on the role of hippocampo-medial prefrontal cortical neuronal circuit	Karnataka
54	Dr. Abhijit Das Indian Institute of Technology (IIT), Kharagpur	Spontaneous neuronal activity induced transcriptional regulation mediated by Mef2 in the origin of Autism Spectrum Disorder	West Bengal
55	Dr. Amrutha Swaminathan Indian Institute of Science Education and Research (IISER), Thiruvananthapuram	Understanding the contribution of chromatin remodellers to epilepsy	Kerala
56	Dr. Mahak Sharma Indian Institute of Science Education And Research (IISER), Mohali	Understanding the role of hereditary sensory and autonomic neuropathy gene TECPR2 in cargo sorting and transport from early endosomes	Punjab

57	Dr. Pradeep Punnakal Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	Dissecting the Effect of third-generation antiseizure medications in the Amygdala Networks	Chandigarh (UT)
58	Dr. Aurnab Ghose Indian Institute of Science Education and Research (IISER), Pune	Decoding neural circuits coupling feeding states with anxiety and fear: adaptive modulation by hypothalamic CART neurons	Maharashtra
59	Prof. Shubha Tole Tata Institute Of Fundamental Research (TIFR), Mumbai	Signaling mechanisms and the regulation of cell fate at the mammalian forebrain midline	Maharashtra
60	Dr. Varun Bhaskar DST-Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR), Bangalore	Elucidating the combinatorial effects of C9ALS/FTD-associated disease factors on RNA homeostasis	Karnataka
61	Dr. Somnath Dutta Indian Institute of Science (IISc), Bangalore	Structural and functional investigations of $\alpha$ -hemolysin in cellular context: insights into membrane remodeling for targeted therapeutics	Karnataka
62	Dr. Bhaskar Saha Manipal School of Life Sciences, Manipal	Exploring the potential of modulating the pro-survival functions of mitophagy to develop novel anticancer treatment strategies	Karnataka
63	Dr. Ashwin Laxmikant Kotnis All India Institute of Medical Sciences (AIIMS), Bhopal	Exploration of the correlation of genotype, glycoproteins, and clinical phenotype of disease severity in vitiligo	Madhya Pradesh
64	Dr. Amitabha Bandyopadhyay Institute of Technology (IIT), Kanpur	Investigating the role of FGF4 in limb skeletal branching	Uttar Pradesh
65	Dr. Subhash C Lakhota Banaras Hindu University (BHU), Varanasi	Roles of multiple transcripts of hsr omega lncRNA gene of Drosophila melanogaster in development, immunity, and omega speckle organization	Uttar Pradesh
66	Dr. Rohit Joshi BRIC-Centre For DNA Fingerprinting and Diagnostics (CDFD), Hyderabad	Investigating the role PP1-PNUTS in generation of cell diversity during Drosophila neurogenesis	Telangana

67	Dr. Dasaradhi Palakodeti BRIC-Institute for Stem Cell Biology and Regenerative Medicine (inStem), Bangalore	Unveiling the Mechanisms of Pluripotency through RNA Granules and Mitochondrial Dynamics	Karnataka
68	Dr. Sourav Kumar Dey Indian Institute of Technology (IIT), Dharwad	Real-time imaging of cancer metabolism using RNA-based sensors	Jharkhand
69	Dr. Shweta Tyagi BRIC-Centre For DNA Fingerprinting and Diagnostics (CDFD), Hyderabad	Deciphering the functional interaction of BOD1 with KMT2 family	Telangana
70	Dr. Sam J Mathew DBT-Regional Centre For Biotechnology (RCB), Faridabad	Role of myosin heavy chain-slow in skeletal muscle development and disease	Haryana
71	Dr. Ramesh Yelagandula BRIC-Centre For DNA Fingerprinting and Diagnostics (CDFD), Hyderabad	Elucidating the Role of ZFP687 in Bone Cell Lineage Specification and Maintenance	Telangana
72	Dr. Sanjeev Sinha All India Institute of Medical Sciences (AIIMS), New Delhi	To estimate the prevalence and risk factors of metabolic-associated fatty liver disease (MAFLD) and non-alcoholic fatty liver disease (NAFLD) in PLHIV who are on antiretroviral therapy (ART)	Delhi (UT)
73	Dr. Nitish R Mahapatra Indian Institute of Technology (IIT), Madras	Role of exosome-derived non-coding RNAs in the regulation of renin-angiotensin system under myocardial infarction condition	Tamilnadu
74	Dr. Sanjeev Shukla Indian Institute of Science Education and Research (IISER), Bhopal	Investigation of hypoxia-induced CTCF, G-quadruplex and chromatin reorganization in regulation of alternative splicing promoting breast cancer progression	Madhya Pradesh
75	Dr. Siddhartha Roy CSIR-Indian Institute Of Chemical Biology (IICB), Kolkata	Structural Elucidation into NIPBL Promoter Interactions: Novel Insights for Understanding Cornelia de Lange Syndrome (CdLS): a rare disease in human	West Bengal
76	Dr. Narayan Prasad Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow	Deep Immunophenotyping of Human Whole Blood in patients with Acute Kidney Injury, Acute Kidney Disease, and Chronic Kidney Disease	Uttar Pradesh



77	Dr. Swapnil Rohidas Shinde Indian Institute of Technology (IIT), Bombay	Dissecting mechanisms of functional regulation of ciliary GPCRs pertinent to pancreatic hormonal secretions and glucose metabolism	Maharashtra
78	Dr. Sabyasachi Rakshit Indian Institute of Science Education And Research (IISER), Mohali	Deciphering the Oscillatory Force Response of Tip-links in Hearing	Punjab
79	Dr. Ravi Manjithaya DST-Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR), Bangalore	Elucidating the role of lysosomal hydrolase trafficking in health and disease	Karnataka
80	Dr. Sai Prasad Pydi Indian Institute of Technology (IIT), BHU	Decoding the Activation of GPCR Signaling via Macrophage Rho Pathways in Obesity and Diabetes	Uttar Pradesh
81	Dr. Savneet Kaur Institute Of Liver & Biliary Science Sciences (ILBS), New Delhi	Impact of Maternal Metabolic Dysfunction-Associated Fatty Liver disease on Fetal Liver and Overall Health of the Offspring	Delhi (UT)
82	Dr. Rahul Das Indian Institute of Science Education And Research (IISER), Kolkata	Developing functional T-cells active under high potassium concentration mimicking the tumor microenvironment	West Bengal
83	Dr. Arnab Barik Indian Institute of Science (IISc), Bangalore	Mechanistic Dissection of the Roles of a Peptidergic Circuitry between the Lateral Hypothalamus and Medial Septum in the Affective-Motivational Components of Pain	Karnataka
84	Dr. Ravi Muddashetty Centre for Brain Research, IISc, Bengaluru	Investigate the role of mitochondrial protein synthesis in synaptic function and its implications for Alzheimer's Disease	Karnataka
85	Dr. Shweta Ramdas Centre for Brain Research, IISc, Bengaluru	Elucidating the role of DNA methylation and transposable element activity in age-related cognitive decline in India	Karnataka
86	Dr. Sivaprakasam Ramamoorthy Centre for Brain Research, IISc, Bengaluru	The molecular and neural basis of glypican-4-mediated tau pathology in Alzheimer's disease	Karnataka