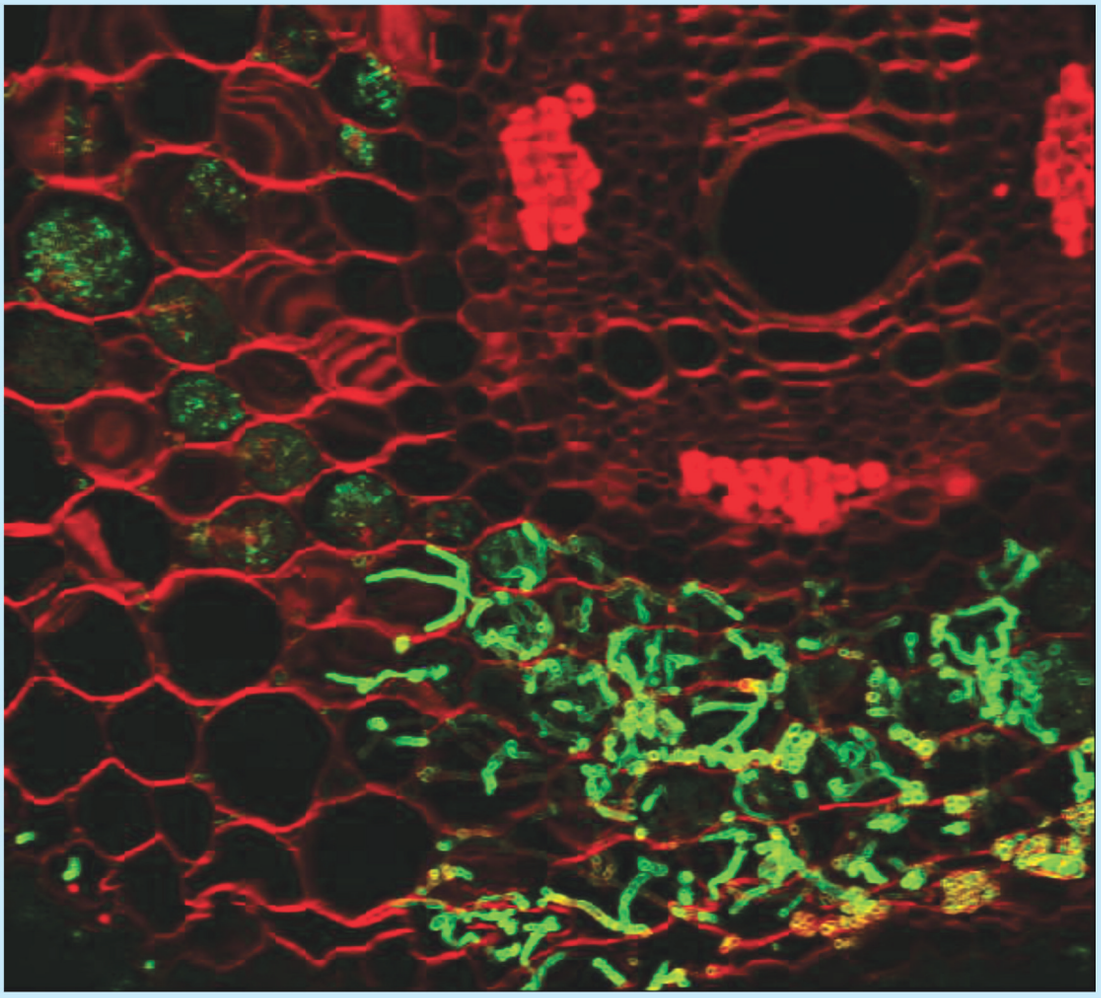
ANNUAL REPORT
2023-24



राष्ट्रीय पादप जीनोम अनुसंधान संस्थान, नई दिल्ली

National Institute of Plant Genome Research, New Delhi

Arbuscular mycorrhizal colonization in chickpea roots.

Transverse section of chickpea lateral root stained with calcofluor white and wheat germ agglutinin-FITC conjugate. Plants were grown in *Macrophomina phaseolina* and Arbuscular mycorrhizal Fungus (AMF) enriched *sick-soils. M. phaseolina* colonization can be observed in the bottom right region. Dense clumping of *M. phaseolina* hyphae show the developing microsclerotia. The top left region shows cortical cells colonized by AMF. Scale bar - 100µm.

Vision

To generate new knowledge in the area of plant genomics, assimilate it with current knowledge and translate the same for genetic enhancement of plants for social benefits

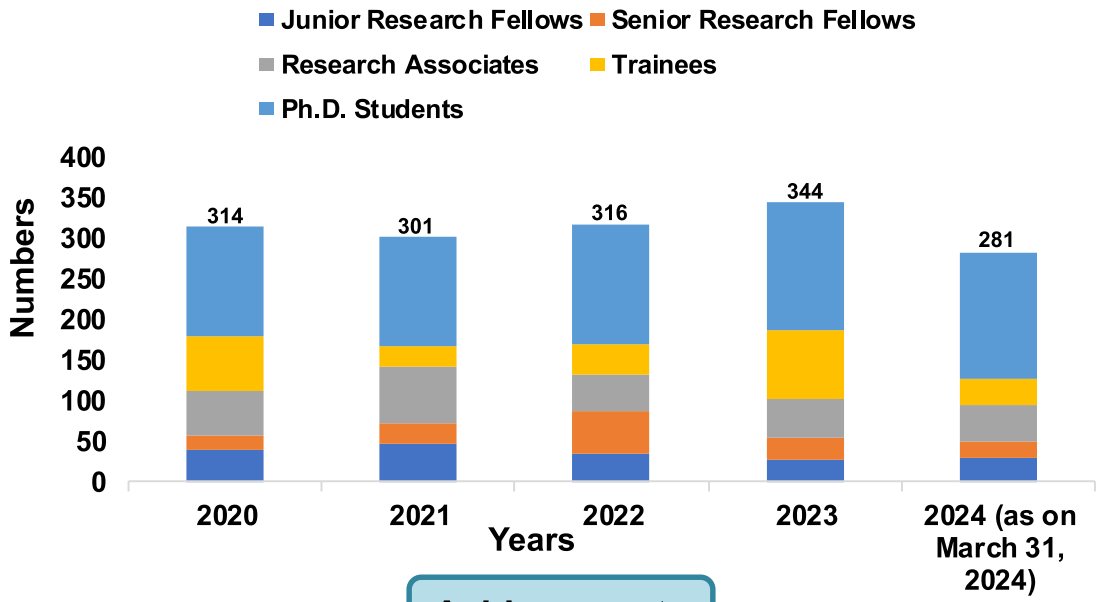
Mission

To undertake, aid, promote guide and coordinate research of high calibre in basic and applied plant molecular biology

Research Areas

1. Genome analysis and molecular breeding
2. Development and signalling
3. Plant responses to abiotic stresses
4. Plant-microbe/insect interactions & plant immunity
5. Computational and structural biology
6. Nutritional traits in crops

Human Resource Development



Achievements

Ph.D. awarded:	[206 (11*)]	Publications:	[1522 (123*)]
Patents and products:	[73 (5*)]	Lectures delivered:	[1355 (85*)]
Lectures organized:	[241 (20*)]	Conference and workshops:	[120 (14*)]
Students visit:	[99 (8*)]	Awards and recognitions:	[268 (17*)]

[2023-24 (*as on March, 2024)]

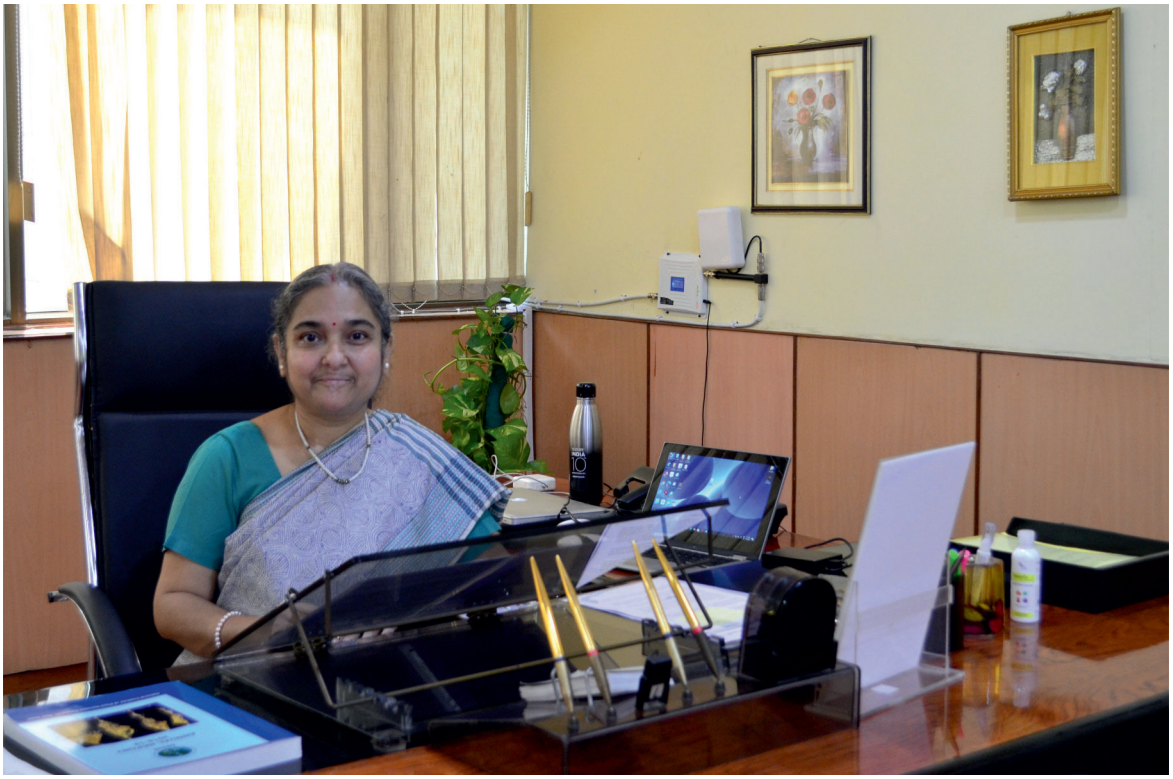
National Institute of Plant Genome Research, New Delhi

Contents

Mandate

- Undertaking high caliber scientific research in advanced areas of fundamental and applied plant molecular biology;
- Providing effective linkages between various scientific and research agencies in the country on plant genes and related areas;
- Utilizing molecular biology approaches along with tissue culture and genetic engineering technology to identify important genes and manipulate them for generating transgenic plants with improved agronomic characters and pathogen/stress resistance;
- Undertaking fundamental research work related to gene-regulation and mapping;
- Utilizing molecular breeding for genetic improvement of crops for important traits;
- Understanding molecular basis of plant-microbe interactions;
- Imparting advance training in the field of plant genetic engineering and genome analysis;
- Undertaking collaborative programmes with various Universities/Institutes that are engaged in plant genome research.

Preamble



It is my pleasure to present the Annual report for the year April 2023-March 2024. Since its inception in 1998, the National Institute of Plant Genome Research (NIPGR) has focused on both basic science and translational work. Today, NIPGR's vision is to be recognized as a center of excellence not only in the Asia-Pacific region but also among the top plant science institutes in the world. To fulfill this vision, the mission is to continue to pursue high caliber research and innovation in plant molecular biology and seeking application of the same to have a transformative impact on society and nation building. The Institute is actively engaged in research on topics ranging from genome analysis and molecular breeding, plant development and architecture, adaptation to abiotic stresses, molecular mechanisms of plant-microbe/insect interactions, plant immunity, computational and structural biology, nutritional genomics, and other emerging areas of cutting-edge research. Currently, the Institute has 33 scientists, who are leading independent groups covering cutting-edge research. To achieve its objectives, the Institute ran 25 intra-institutional collaborative programs, 33 national collaborations, 05 international collaborations. 11 students have been conferred with Ph.D. degree, and 87 external scientists/students were trained in the institute. The Institute has made significant progress in its research activities during the period, which are reflected in high-quality publications and promising technology leads. NIPGR published 123 research papers in the reporting period and filed 5 patents with 2 granted patents. I would like to highlight below some of the recent achievements of the Institute.

In the area of genome analysis and molecular breeding, progress has been made to understand the Vigna genome evolution. The study published in Plant Biotechnology Journal a reference grade de novo genome assembly anchored to the genetic linkage groups showed to cover almost the whole estimated genome length of ricebean and so far, the largest among the sequenced Vigna species. Another study reported in Plant Journal, GWAS, QTL/fine mapping, map-based cloning, and functional genomics delineated two Mediator subunit genes CaMED23 and CaMED5b and their derived natural alleles/haplotypes underlying the major QTLs and trans-acting eQTLs regulating plant height in chickpea. The institute also achieved significant advancements, including the development of a superior drought-tolerant, high-yielding desi chickpea variety named ADVIKA by introgression of an ABC transporter gene into the genetic background of JG 16. This superior drought-tolerant chickpea variety has been approved by the Central Sub-committee on Crop Standards, Notification and Release of Varieties (CVRC), Ministry of Agriculture Farmers Welfare, Government of India, for release and notification as a central variety for national use and cultivation, especially in the Central Zone of India.

Under plant development and signalling, the knock-out of REP1, a C2H2 zinc finger transcription factor, has been shown to increase rice grain traits. The study demonstrated that REP1 negatively regulates flowering time and pollen viability in rice. In another study, researchers have elucidated the role of the BASIC LEUCINE-ZIPPERX (bZIPX) transcription factor in regulating plant growth under iron (Fe) deficiency by controlling the expression of Fe responsive genes. Overall, this study revealed the significance of bZIPX as a pivotal regulator in mediating plant adaptation during Fe deficiency.

Understanding plant response to abiotic stress has been a major area of research at NIPGR. In a prominent study published in Plant Cell, using biochemical and genetic approaches, the role of a new module (AtSKIP31-JAZ-ABI5) in regulating seed maturation and consequent seed vigor was unraveled in Arabidopsis. The study showed that AtSKIP31 is predominantly expressed in seeds and interacts with JAZ proteins, a key repressor in JA signaling, and directs their ubiquitination for proteasomal degradation independently of COR/JA-Ile, in contrast to COI1, which targets JAZs in a COR /JA-Ile dependent way. Additionally, a superior allele involved in abscisic acid signaling, enhancing drought tolerance and yield in chickpea has been identified. A bHLH transcription factor, CabHLH10, underlying a major QTL, along with its derived natural alleles/haplotypes governing yield traits under drought stress was delineated in chickpea. CabHLH10 binds to a cis-regulatory G-box promoter element to modulate the expression of RD22 (responsive to desiccation 22), a drought/abscisic acid (ABA)-responsive gene (via a trans-expression QTL), and two strong yield-enhancement photosynthetic efficiency (PE) genes. The identified superior allele of CabHLH10, introgressed into NILs, improves root and shoot biomass and PE, thereby enhancing yield and productivity during drought without compromising agronomic performance. Efforts are underway to release this improved chickpea variety.

In the area of plant-microbe/insect interactions & plant immunity, a study in New Phytologist has unraveled that Bg_9562, a prophage tail-like protein of a mycophagous (fungal-eating) bacterium,

Burkholderia gladioli is important for endophytic growth of the bacterium in plants. However, the plant recognizes it as a novel microbe-associated molecular pattern (MAMP), to trigger potent immune responses. A smaller variant of the Bg_9562 protein (32 aa peptide) has been identified and showed to be effective in antifungal as well as plant defense-inducing ability. Notably, treatment with the chemically synthesized Bg_9562 peptide is effective in controlling fungal and bacterial infections in plants, thereby preventing yield loss and improving trade value. To comprehensively address climate resilience in crops, in yet another study published in Plant Journal a database resource has been reported aiming at understanding combined stress factors. This resource, Stress Combinations and Their Interactions in Plants (SCIPdb), has been released as a public knowledge asset to support future research. SCIPdb guides the identification of crop-specific stress combinations requiring in-depth exploration, benefiting plant pathologists, physiologists, agronomists, entomologists, and other agricultural discipline scientists and researchers. It facilitates informed decision-making and empowers funding agencies to allocate resources for projects aligned with current agricultural needs. SCIPdb also includes educational materials such as videos and podcasts, making it accessible to all audiences, including students. Furthermore, the institute has developed a NA2S2O4-based formulation and method for inducing defense responses in plants. This formulation mimics the plant hypersensitive response (HR) to localized cell death, preventing pathogen spread and activating salicylic acid and nitric oxide signaling to defend distal parts of plants. The sodium dithionite and nitrite nanoparticles, created using sodium alginate encapsulation and nano-emulsion methods, rapidly scavenge oxygen at the application site. The presence of nitrite in the nanoparticles generates nitric oxide, inducing plant defense responses. These SD/nitrite nanoparticles are effective against *Xanthomonas axonopodis* pv. punicae in pomegranate and *Pseudomonas syringae* in tomato. Yet another report in Plant Cell Environment described a previously unknown non-canonical signaling module by which plants sense external JA-Ile rapidly to amplify both AtPep-PEPR and jasmonate signaling in undamaged cells.

In the area of computational and structural biology, epigenetic patterns of lncRNAs have been analyzed in Arabidopsis for their widespread silencing role. Investigation into sRNA association with identified lncRNAs suggests reciprocal regulation between lncRNAs ¬and sRNAs, impacting mRNA expression and participation in the RdDM pathway. Another study published in Computational and Structural Biotechnology Journal quantified the structural and functional divergence of StART domain-containing proteins in plants. The StART domains retain an ancestral / helix-grip signature, but with subtle variations in cavity architectures, leading to significantly smaller ligand-binding tunnels in the plant kingdom. The study identified cavity lining residues (CLRs) responsible for the reduction in ancestral tunnel space, and these appear to be class-specific, and unique to plants, providing a mechanism for the observed shift in domain function.

Nutritional traits in crop plants have been a prime focus at NIPGR. Aroma strongly influences grain quality and sensorial attribute, yet its composition during seed development is poorly understood. A very recent study published in Food chemistry revealed novel aroma related proteins and metabolites beyond the known 2AP, in addition to the biological and metabolic pathways in

basmati rice using proteo-metabolomics approach. The study has future potential towards targeted bioengineering of pathways for crop quality improvement programs. A recent Plant Biotechnology Journal article reported successful targeted editing of multiple homologs of GTR1 and GTR2 genes for mustard improvement. Using an improved CRISPR/Cas9 genome editing strategy, 10 glucosinolate transporter (GTR) genes have been precisely edited to generate ideal oilseed mustard lines with reduced seed glucosinolate content while maintaining high glucosinolate levels in leaves and silique walls, enhancing defense traits. The transgene-free lines have been tested for trait stability under containment net-house conditions for two generations and now the product is ready for advanced field trials. Another study published in Journal of experimental botany provided new insights into the molecular mechanisms by which flavonols interfere with the relevant signal chains and their molecular targets. The study presents the first mechanistic model of flavonol-induced modulation of camalexin and aliphatic glucosinolate biosynthesis in the model plant *Arabidopsis thaliana*.

To sum up, the Institute has made significant progress in its research activities, which are reflected in high-quality publications and some promising technology leads. Apart from high quality research, publications and manpower training, the Institute is also striving hard to translate its findings. Some of the research is also leading to translational applications as evident from new plant lines that have either entered field trials or expected to enter the trials soon. The Institute is continuously upgrading its research infrastructure in order to effectively pursue the twin goals of conducting high-quality basic research and seeking its application towards product development. The efforts are ongoing to establish the Speed Breeding and High Throughput Phenotyping platforms at NIPGR's Translational Centre at Bulandshahr. Development of the Platform for Measuring Free Radicals, Establishment of Single cell genomics platform, National Plant imaging facility and expansion of Central Instrumentation Facility are also ongoing to give fillip to the research work. During the reporting period, the Institute has hosted several National/International Conferences/ Workshops/Symposia and Webinars/Seminars which included talks by eminent scientists, poster presentations, exhibition of related technologies, etc. The Institute organized the 15th Annual meeting of Proteomics Society, India & International Conference on Integrated Proteomics during November, 2023. It is organized with a strong commitment to research, application and international collaboration to showcase exciting discoveries and new insights in the field of proteomics. This has also served the purpose of enlarging the resource base and bringing greater awareness to the scientific community. Participants across the globe from various scientific disciplines, including Plant, Agriculture, Animal and Human field actively participated in the conference. The Institute also organized a BIC-NNP Workshop on "Big Data Analysis and Machine Learning" which included a hands-on training to students/researchers, talks from eminent scientists in the field of bioinformatics on Computational genomics, Artificial Intelligence (AI), Machine Learning (ML), and Chemoinformatic. As a public outreach, the institute has organized an Open Day which has benefitted school & college students across the NCR region. The Institute has also participated in IISF 2023. This year witnessed the emergence of the NIPGR-CBBF as a National Facility, namely the "National Plant Computational Biology & Bioinformatics Facility (NPCBBF)" on the occasion of Silver Jubilee Celebrations of NIPGR, and this facility was inaugurated by Dr. Jitendra

Singh, Hon'ble Minister of State for Science & Technology, Minister of State in the Prime Minister's Office, Ministry of Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space, Govt. of India on 29th November 2024.

During the reporting period, the Institute entered into MoUs with (i) Imperial Life Sciences (ILS) Pvt. Limited, Gurgaon (Haryana) wherein NIPGR-NGGF and ILS have agreed to function in public private partnership (PPP) mode for providing "Sequencing, genotyping, and consultancy services to stakeholders from public and private sectors" for the purpose of making significant contributions to basic, strategic and applied research in genetics and genomics; (ii) Biotech Consortium Limited (BCIL), New Delhi to provide techno legal advice/services for evaluation/ transfer of Technologies developed by the Institute by licensing to industry for their further development and commercialization; (iii) Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut (UP) to collaborate and share the research facilities between the institutions to enhance the capacity towards development; laboratory and field testing; and multiplication of crop germplasms and newly developed varieties; (iv) NIPGR in collaboration with the Inter-Academy Panel (IAP), of the three Science Academies of India i.e., INSA, New Delhi; IASc, Bengaluru and NASI, Prayagraj, has launched the national database/Portal on "Women in Science: viz SWATI (Science for Women-A Technology & Innovation)" on the occasion of International Day of Women and Girls in Science which is a public interactive online resource and will serve as a gateway to the expertise and contributions of Indian Women in StEMM. The Institute is now in the process of executing an MoU in the mutual interest of the Parties in implementation of SWATI Portal.

It was noteworthy that many of NIPGR faculties and researchers were awarded prestigious honors/ awards and fellowships in distinct areas for their significant contribution to plant science research during this period. Overall, the institute made excellent progress in every endeavor it undertook in the last year and with the help of dedicated staff members, it is poised to steadily march forward in contributing to plant science and thereby the nation building.

Finally, it is a pleasure to acknowledge the contribution of fellow scientists, students, researchers, technical and administrative staffs of NIPGR for the overall development of a vibrant Institute. I would like to congratulate one and all, past and present members of NIPGR family for bringing together innovative science and science for society and wish a successful celebration of NIPGR Silver Jubilee. I would like to thank Dr. Senthil K. Muthappa, Dr. Gopaljee Jha and the team consisting of administrative/technical staff of NIPGR for their help in the preparation of this Annual Report.

Subhra Chakraborty

Director

Highlights of the Scientific Achievements

Highlights of the Scientific Achievements

The highlights of the scientific achievements of National Institute of Plant Genome Research during 2023-24 under six major research areas of the Institute are given below:

A. Genome analysis and molecular breeding

Delineation of natural gene alleles regulating plant height to develop semi-dwarf, high-yielding chickpea variety

(PI: Parida Swarup K.)

The coherent strategy involving GWAS, QTL/fine mapping, map-based cloning, and functional genomics delineated two Mediator subunit genes CaMED23 and CaMED5b and their derived natural alleles/haplotypes underlying the major QTLs and trans-acting eQTLs regulating plant height in chickpea. Differential accumulation of haplotype-specific transcripts of these two Mediator genes in corresponding haplotype-introgressed NILs correlates negatively with the plant height. Quantitative as well as qualitative estimation based on histology, scanning electron microscopy and histochemical assay unraveled the reduced lengths and cell sizes of internodes along with compromised lignin level in dwarf/semi-dwarf chickpea NILs. This observation, supported with global transcriptome profiling-based diminished expression of various phenylpropanoid pathway genes upstream of lignin biosynthesis in dwarf/semi-dwarf NILs, essentially links plant height with lignin accumulation. Molecular signatures delineated in Mediator subunit genes can be efficiently utilized to develop desirable semi-dwarf-type chickpea cultivars without affecting their yield per plant via modulating lignin/phenylpropanoid biosynthesis.

Natural variation and GWAS to dissect the genetic basis of photosynthetic efficiency and leaf developmental traits in rice

(PI: Ranjan Aashish)

The importance of increasing photosynthetic efficiency for sustainable crop yield increases is well recognized. A detailed understanding of the genetic factors determining the leaf photosynthesis rate and underlying developmental and physiological traits is imperative for increasing photosynthetic efficiency and thus genetic yield potential. We aimed to characterize the natural variation for leaf photosynthesis rate and associated physiological and developmental traits in the cultivated rice gene pool followed by GWAS to identify the genetic determinants of leaf photosynthetic efficiency and leaf morphological traits. We identified genomic regions encompassing known as well as novel regulators that could influence key functions related to photosynthesis, such as photosystem I assembly, Rubisco assembly, NADPH dehydrogenase, and iron-sulfur cluster formation. We also

identified the superior haplotypes of the candidate genes mediating higher leaf photosynthetic efficiency. Moreover, we identified genes and their superior haplotypes, including a novel GARS domain regulator, mediating desirable leaf features from our GWAS on leaf morphology.

Role of higher-order chromatin organization in genome regulation

(PI: Yadav Vikash Kumar)

Chromatin undergoes dynamic changes in structure, organization, and chemical modifications, collectively known as chromatin rewiring, which play a pivotal role in controlling gene expression and thereby dictate plant growth and development. Despite the significance of seeds in our diet, our understanding of the molecular mechanisms governing seed development remains limited, impacting the foundation of agricultural yield. We aim to elucidate the intricate molecular mechanisms behind the dynamic changes in chromatin structure and gene regulation during seed development. To achieve this, we will utilize Hi-C and provide a multi-dimensional perspective on the intricate landscape of 3D chromatin organization. Integrating interactome with epigenomic datasets will shed light on the nature of upstream regulatory elements interacting with target genes. Therefore, investigating the genetic and epigenetic factors influencing seed development represents an exciting avenue for research with profound implications for enhancing agricultural yield. We are poised to delve into chromatin biology core questions and contribute to the advancement of agricultural and biotechnological applications.

B. Development and signalling

Knock-out of a C2H2 zinc finger transcription factor leads to increment of rice grain traits

(PI: Agarwal Pinky)

REP1, a C2H2 zinc finger transcription factor, shows seed-preferential expression, with highest in S4 stage of seed development. It shows nucleocytoplasmic partitioning and exhibits highly regulated pattern of localization. REP1 acts as a transcriptional repressor by virtue of the DLN motif. REP1 forms homodimer, interacts with a co-repressor, histone deacetylases and a mediator, to form a repression complex. Phenotyping of knock-down and knock-out plants showed that REP1 negatively regulates grain length, and weight in rice. Grain size is regulated through cell expansion. REP1 has a negative control over grain chalkiness, amylose accumulation and total protein production. REP1 binds to the promoter of two downstream seed storage protein encoding genes, and represses their expression. REP1 also controls erect leaf phenotype due to altered expression of cell cycle and BR related genes. It negatively regulates flowering time and pollen viability. Hence, the knockout of REP1 shows positive phenotypes in terms of grain traits.

Molecular mechanism of apical hook development in Arabidopsis thaliana

(PI: Jewaria Pawan Kumar)

Plants are unable to move and therefore they have developed specialized mechanism such as gravitropism, phototropism and apical hook which involves differential growth across the tissue. The apical hook develops immediately after seed germination and protects the apical meristem. Since apical hook is not required for survival during growth of Arabidopsis thaliana seedlings under laboratory conditions, it is an excellent model system to take genetic and cell biological approaches to study mechanisms underlying differential cell elongation.

The primary cell wall is mainly composed of cellulose, hemicelluloses and pectin. The cell wall component pectin is a highly complex polymer with three subdomains: homogalacturonan (HG), rhamnogalacturonan-I (RG-I), and RG-II. The MUR1 encodes an enzyme for making GDP-fucose which is required for xyloglucan and RG-II biosynthesis. The mur1 mutant, compromised in RG-II dimerization, reduced RG-II dimerisation leads to attenuated expression of polar auxin transport components, disrupting auxin maxima or minima causing severe defects in differential growth and hook development.

Isolation and phenotypic characterization of the higher order mutant of BRAHMA and BUSHY in Arabidopsis

(PI: Meena Shiv Kumar)

The project focuses on characterizing the higher-order mutant of BRAHMA and BUSHY in Arabidopsis. By dissecting their functional roles and interactions, we aim to unravel the molecular mechanisms underlying plant development and stress responses. The cooperative or antagonistic effects of these chromatin remodelers hold promise for advancing the understanding of gene expression regulation and phenotypic plasticity in plants.

BASIC LEUCINE-ZIPPER (bZIP) transcription factor modulates plant adaptive responses by adjusting iron homeostasis during iron deficiency

(PI: Singh Amar Pal)

The interaction of nutrients within the rhizosphere plays a critical role in regulating plant metabolic responses, growth, and development. Iron is particularly essential and its deficiency in the rhizosphere can significantly hinder plant growth. Here, we elucidate the role of the BASIC LEUCINE-ZIPPERX (bZIPX) transcription factor in regulating plant growth under iron (Fe) deficiency by controlling the expression of Fe responsive genes. Our findings demonstrate that under Fe deficiency, bZIPX expression is enhanced, and this transcription factor plays a crucial role in modulating genes responsible for Fe homeostasis. Specifically, bZIPX binds to the promoters of key genes involved in Fe homeostasis, such as iron transporters, thereby enhancing their expression levels. Mutants lacking functional bzipX show increased inhibition of

root growth in response to Fe deficiency, accompanied by compromised levels of both Fe. These results collectively underscore the significance of bZIPX as a pivotal regulator in mediating plant adaptation during Fe deficiency through the regulation of Fe homeostasis genes.

Transcriptomic profiling of shoot apical meristem (SAM) and inflorescence meristem (IM) between different Brassica oleracea morphotypes

(PI: Soundararajan Prabhakaran)

Gene networks of SAM and IM are vital for plant growth and development. Though several studies have been reported on SAM and IM on Arabidopsis, rice, maize, only few reports are available in Brassica. Compare with IM tissues, genes upregulated in the SAM are mostly involved in the photosynthesis, light response, and pigment biosynthesis in cauliflower and broccoli. In case of cabbage, SAM specific genes are belong to the ribosome biogenesis, adaxial/abaxial patterning, and shoot morphogenesis. Even though not must difference in GO of SAM of cauliflower and broccoli, IM of cauliflower are enriched with hypoxia stress-related genes whereas IM of broccoli showed more genes related to the nutrient-response followed by the oxygen-response. Contrast to the IM, LH tissue of cabbage are mostly enriched with the glucosinolates biosynthesis-related genes. Similar results were observed in KEGG pathway analysis of cabbage. This transcriptomics analysis results, gives the clue of distinct DEGs between the different morphotypes which could be responsible for the diversification.

C. Plant responses to abiotic stresses

Dehydration-responsive cytoskeleton proteome of rice reveals reprograming of key molecular pathways to mediate metabolic adaptation and cell survival

(PI: Chakraborty Niranjan)

To better understand how plants withstand this stress, it's essential to pinpoint new marker proteins indicative of dehydration adaptation mechanisms. In this study, we employed label-free quantitative proteomics to scrutinize the cytoskeletal proteome of a dehydration-resistant rice variety. Our analysis unveiled a concerted response from regulatory and functional proteins, shaping the plant's ability to adapt to dehydration. Among the identified dehydration-responsive cytoskeletal proteins (DRCPs), many were associated with developmental processes, organelle targeting, and movement, as well as stress signaling regulation. Notably, kinases and phosphatases implicated in vital metabolic pathways were also identified. Analysis unveiled intricate cascades among cytoskeletal proteins under dehydration, including pathways related to hormone signaling, proteolysis, and cytoskeleton-mediated signaling. Importantly, while the functions of numerous rice DRCPs remain elusive, their functional characterization holds promise for enhancing our understanding of stress adaptation mechanisms and facilitating the development of resilient crop varieties capable of withstanding future climate challenges.

Finding chickpea genomic loci associated with the root penetration responsive traits in compacted soils

(PI: Giri Jitender)

Soil compaction is a major concern for modern agriculture, as it constrains plant root growth, leading to reduced resource acquisition. Phenotypic variation for root system architecture (RSA) traits in compacted soils is present for various crops; however, studies on genetic associations with these traits are lacking. Therefore, we investigated RSA traits in different soil compaction levels and identified significant genomic associations in chickpea. We conducted Genome Wide Association (GWAS) of 210 chickpea accessions for thirteen RSA traits under three (1.1 BD, 1.6 BD, and 1.8 BD) soil compaction levels. Soil compaction decreases root exploration by reducing twelve RSA traits, except average diameter (AD). In chickpea, an increase in AD could detrimentally affect lateral root growth, which is already reduced during soil compaction. Interestingly, we identified probable candidate genes like GLP3 and LRX for lateral root traits and CRF1-like for total length (TL) in moderate compaction from the significant associations. In heavy soil compaction, DGK2 is associated with lateral root traits. Reduction in laterals during soil compaction is mainly due to delayed seedling establishment, thus making lateral root number a critical trait. Interestingly, we found a higher contribution of the number of root tips (Tips) plasticity to the total variation than the other lateral traits. We also identified a pectin esterase, PPE8B, associated with Tips in high soil compaction. Further, there was no common association between high and moderate compaction, suggesting differences in molecular pathways regulating root growth. Identified genes and loci would help develop soil-compaction-resistant chickpea varieties.

Glycine Decarboxylase Protein (GLDP) mediates hypoxia tolerance in Arabidopsis

(PI: Kapuganti Jagadis Gupta)

Plant triggers various metabolic changes for hypoxia survival by enhancing the expression of hypoxia-responsive genes, including glycolysis and fermentative pathways to generate ATP and NADH. The potential role of photorespiratory GLDP in hypoxia tolerance is unexplored to date. In this work we found that GDC play role hypoxia tolerance via enhanced operation of Pgb-NO cycle and recycling of NAD+ which is very important for energy production under hypoxia. gldp mutant was unable to survive hypoxia and submergence and failed to induce hyponasty response. The overexpression lines of GLDP showed enhanced energy production accompanied by enhanced hyponasty and concomitant survival to submergence. Our result suggest GDC is a novel player in hypoxia tolerance.

Arabidopsis TOR kinase regulates phosphate deficiency response

(PI: Laxmi Ashverya)

Sugars regulate the Pi deficiency response in Arabidopsis. TOR kinase is a central coordinator of nutrient-dependent growth in eukaryotes. RNA interference line of TOR kinase showed a hypersensitive response of tori under phosphate deficiency. Estradiol-inducible TOR RNAi lines

(tores1) showed a significant reduction in the expression of PSR genes. TOR kinase has an essential role in phosphate signaling, which was proven by increasing TOR activity (S6Kp/ S6K level) in pi deficiency. Whole genome transcriptomic analysis further corroborated with the hypersensitive response of tori in phosphate deficiency. The transcriptomic analysis further suggested an increase in defense signaling in tori lines. This was validated by the reduced association of tori seedlings with Piriformospora indica. This indicates a role of TOR kinase in regulating the PHR1 protein level in pi signaling to manage the plant growth.

AtSKIP31, an F-box protein, modulates seed maturation process and consequent seed vigor by targeting JAZ proteins in JA-Ile independent manner in Arabidopsis

(PI: Majee Manoj)

Seed maturation including acquisition of desiccation tolerance is a highly complex physiological process which. that allows seeds to extend their viability and germinability in desiccated state for prolong period of time. Here, we demonstrate the role of an F-box protein AtSKIP31 in regulating late seed maturation events and resulting seed vigor, and viability in Arabidopsis through biochemical and genetic studies using atskip31 mutants and different transgenic lines. We show that AtSKIP31 is predominantly expressed in seeds and interacts with JAZ proteins, a key repressor in JA signaling, and directs their ubiquitination for proteasomal degradation independently of COR/JA-Ile, in contrast to COI1, which targets JAZs in a COR /JA-Ile dependent way. We further show that JAZ proteins interact with the ABI5 and repress its transcriptional activity, which in turn represses the expression of the downstream genes involved in the accumulation of LEA proteins, protective metabolites, storage compound, and ABA-synthesis, directly or indirectly. However, AtSKIP31 targets JAZ proteins, deregulate ABI5 activity, and positively regulates seed maturation and consequently seed vigor.

Functional diversification of miR172 isoforms in tomato under abiotic stress

(PI: Mathur Saloni)

MIR172 is an evolutionarily conserved family yet, its systematic in-depth analysis in tomato was lacking. We identified and validated four new Sly-MIR172 loci in addition to the four loci at the miRBase. We validated Sec14p-like phosphatidylinositol transfer protein (SEC14p) as a novel target apart from the classical target, AP2. We show differential processivity of Sly-MIR172 precursors coding for the same mature miR172 and that both the targets are regulated by mRNA cleavage and translational repression. Expression profiles of miR172:target pairs suggested MIR172 family as regulators of various abiotic stresses in tomato. The Sly-MIR172 precursor and StTM172 were transiently overexpressed in tomato seedlings and VIGS was used to knock-down the expression of target genes in tomato plants to assess the role of miR172:targets in different stress conditions. It was found that Sly-SEC14p and Sly-AP2a act as negative regulators of heat, drought and salt stresses in tomato. Thus, the miR172:target modules have the potential to be used for raising heat, drought and salt resilient plants for tackling future harsh climates by either overexpressing miR172 or down-regulating its targets.

A Comprehensive Functional Approach to Unravel the Key Candidates Involved in High Temperature Responses During Nodule Development in Chickpea

(PI: Mishra Divya)

Our preliminary analysis showed that the nodule number significantly decreases under HTS stress in chickpea. In addition, a similar phenotype in the Medicago nodule was observed as well when exposed to HT during early nodulation. We found the nodule size was smaller under HT than control in chickpea. These findings indicate that HT negatively affects nitrogen fixation by impacting nodule development. These findings intrigued to explore how HT affects nitrogen fixation by deciphering the molecular mechanism of nodule development under HTS.

Identifying the mechanistic basis to nitrogen responsiveness in two contrasting Setaria italica accessions

(PI: Prasad Manoj)

Nitrogen (N) is a macronutrient limiting crop productivity with varied requirements across species and genotypes. Understanding the mechanistic basis of N responsiveness by comparing contrasting genotypes could inform the development and selection of varieties with lower N demands, or inform agronomic practices to sustain yields with lower N inputs. Given the established role of millets in ensuring climate-resilient food and nutrition security, we investigated the physiological and genetic basis of nitrogen responsiveness in foxtail millet (Setaria italica L.). We had previously identified genotypic variants linked to N responsiveness, and here, we dissect the mechanistic basis of the trait by examining the physiological and molecular behaviour of N responsive (NRp-SI58) and non-responsive (NNRp-SI114) accessions at high and low N. Under high N, NRp-SI58 allocates significantly more biomass to nodes, internodes and roots, more N to developing grains, and is more effective at remobilising flag leaf N compared to NNRp-SI114. Post anthesis flag leaf gene expression suggests that differences in N induce much higher transcript abundance in NNRp-SI114 than NRp-SI58, a large proportion of which are potentially regulated by APETALA2 (AP2) transcription factors. Overall, the study provides novel insights into the regulation and manipulation of N responsiveness in S. italica.

Identification and Characterisation of Heat Tolerance Mechanisms at Seedling Stage in Pearl Millet

(PI: Ram Hasthi)

Pearl millet shows higher degree of tolerance to drought and heat, compared to other cereals such as rice and wheat. However, the underlying molecular mechanism remains unidentified. Here in this study 116 diverse pearl millet genotypes were screened for relative water contents (RWC) and membrane thermostability (MTS), and large diversity was observed for these traits. Based on these parameters, thermotolerance and thermosensitive genotype were identified. Among them three genotype, IC-537992 and IC-370525, IC-420312, consistently showed thermosensitivity whereas IP 22295 (843B) and Local landrace (G-84) showed thermotolerance for both the parameters

analysed. Subsequently, we aimed to identify gene regulatory networks and pathways associated with heat tolerance in the selected genotypes. In the field conditions pearl millet simultaneously faces both heat and drought, thus we studied the effects of heat, drought (PEG-6000) and combined effect of heat and drought stress. The analysis of transcriptome data identified around 3000 significant differentially expressed genes (DEGs) under heat stress and combined stress, whereas under drought stress around 700 DEGs were identified.

Molecular and functional characterization of core ABA signaling pathway genes in Chickpea

(PI: Singh Amarjeet)

The complete sets of PYL, PP2C-A and SnRK2 encoding genes (core ABA signaling module) have been identified in the chickpea genome. These gene families were found to be highly conserved in terms of their gene and protein structures and evolution in chickpea and other higher plants. Gene expression analyses indicate that CaPYL, CaPP2C-A and CaSnRK2 genes might regulate chickpea plant's response to drought, salt stress and plant development, particularly seed development via ABA signaling. In-silico protein interaction analysis provided crucial insights into various specific and overlapping interactions among core ABA signaling components. In the future, functional investigations of these interacting partners in normal and stress conditions will help to decipher the ABA signaling module underlying the stress response of chickpea.

Investigation of early signaling events in chickpea upon insect herbivory

(PI: Sinha Alok Krishna)

We revealed the role of post-translational modification of PIF4 in the elevated temperature–induced ARP6 repression. MITOGEN-ACTIVATED PROTEIN KINASE 4 (MPK4) is activated at elevated temperature and phosphorylates PIF4. Phosphorylated PIF4 represses ARP6 expression, leading to reduced deposition of H2A.Z at genes (EXP2, IAA19, and XTH33) involved in hypocotyl elongation at 28°C. Phosphorylation of PIF4 does not affect its binding to the ARP6 promoter but represses ARP6 expression by some other mechanism. Reduced H2A.Z deposition at EXP2, IAA19, and XTH33 allows more expression of these genes to occur, promoting hypocotyl elongation by expanding hypocotyl cell length. We also found that MPK4 expression is controlled by H2A.Z deposition in a temperature-dependent manner.

D. Plant-microbe/insect interactions & plant immunity

Transcriptome profiling reveals CabHLH95, a basic helix-loop-helix transcription factor, as a repressor of gibberellin biosynthesis during chickpea nodule development

(PI: Bhatia Sabhyata)

Comparative transcriptomic profiling of two chickpea cultivars with contrasting root nodulation phenotypes revealed several regulatory signatures involved in root nodule development. Among these, the candidate gene CabHLH95 was identified for characterization for its role in root nodule development. CabHLH95 exhibits stage-specific expression during the middle stage of nodulation. Subcellular localization studies revealed its localisation in the nucleus. Subsequent transactivation and repression assays revealed it to be a strong repressor. Hairy root transgenic lines with altered expression of CabHLH95 were generated, revealing a positive correlation between CabHLH95 expression levels and nodule number, weight, and size. Additionally, dual-luciferase assays confirmed that CabHLH95 directly binds to the promoter regions of GA20-Ox2 and GA3- hydroxylase, mediating their transcriptional repression, thus negatively impacting the levels of bioactive GAs.

Overall, the study sheds light into the regulatory role of CabHLH95 in root nodulation of chickpea thereby paving a way for devising strategies for genetic improvement of chickpea cultivars with optimised nitrogen fixation ability.

WRKY48 regulates CIPK6 expression for negative regulation of immune response in Arabidopsis thaliana

(PI: Chattopadhyay Debasis)

CBL-interacting protein kinase 6 (CIPK6) acts as a negative regulator of immune response in Arabidopsis thaliana against the blight-causing bacteria Pseudomonas syringae DC3000. The bacterial infection reduces CIPK6 gene expression. Our results demonstrated that WRKY48 binds to CIPK6 promoter and repress CIPK6 gene expression. Stability of WRKY48 protein in turn, is increased by MAPK3-mediated phosphorylation. Phosphorylated WRKY48 binds to CIPK6 more efficiently. Our data demonstrated that WRKY48 is the upstream regulator of CIPK6 gene expression and provide evidence of interaction between MAPK and CIPK pathways in plant immune system.

Improvement of nutritional quality, postharvest fruit stability and pathogen resistance in edible crops

(PI: Datta Asis)

N-acetyl glucosamine (GlcNAc) is a ubiquitous amino sugar that functions as a structural component of a biological membrane that is involved in cell signalling in eukaryotes. Our research

confirmed that different microbial pathogens exploit GlcNAc during colonization and survival inside the host. The pathway genes of GlcNAc catabolism is well characterized in several microbes. In this study, a transcriptional regulator of the GlcNAc catabolic pathway is reported for the first time in a filamentous fungus. In addition to this, a regulatory mechanism of MoNdt80 was also identified.

A prophage tail-like protein facilitates the endophytic growth of *Burkholderia gladioli* and mounting immunity in tomato

(PI: Jha Gopaljee)

A prophage tail-like protein (Bg_9562) of *Burkholderia gladioli* strain NGJ1 possesses broad-spectrum antifungal activity, and it is required for the bacterial ability to forage over fungi. Here, we report that overexpression of Bg_9562 imparts fungal and bacterial disease tolerance in tomato. The overexpressing lines exhibit enhanced expression of defense genes and activation of mitogen-activated protein kinases. Treatment with Bg_9562 protein induces callose deposition, defense genes expression and imparts immunity in wild-type tomato. The defense-inducing ability lies within 18-51 aa region of Bg_9562 and is due to sequence homology with the bacterial flagellin epitope. We present evidence that the Bg_9562 interacts with the plasma membrane-localized PRR receptor (FLS2 homologous) in tomato. Moreover, silencing of SlSERK3s (BAK1 homologs) prevents the induction of Bg_9562-triggered immunity. Our study emphasizes that Bg_9562 is important for the endophytic growth of B. gladioli, while the plant perceives it as an indirect indicator of the presence of bacteria to mount an immune response. The findings have practical implications in the control of plant diseases.

Investigation of early signaling events in chickpea upon insect herbivory

(PI: Meena Mukesh Kumar)

Plants have developed sophisticated defense mechanisms (constitutive and induced) to deal with a plethora of herbivores and pathogens. Upon herbivory, plants perceive damage-associated molecular patterns (DAMPs) and herbivore-associated molecular patterns (HAMPs) via receptors present on the plasma membrane of neighboring cells of wounding sites. DAMPs and HAMPs perception rapidly trigger cytosolic calcium (Ca2+) elevation and activate calcium signaling. Calcium and other early signaling mechanism led to the activation of biosynthesis of plant defense hormone jasmonic acid to mount adequate defense response to protect against herbivores. Our group is studying the early signaling events in important legume crop chickpea upon Helicoverpa infestation. Helicoverpa is a major threat to chickpea production in India and other countries and severely affects crop harvest 30% to 50% causing 2 billion USD loss annually. We will employ molecular biology, cell biology, and biochemistry techniques to identify key players in chickpea plant defense responses and develop sustainable strategies to improve plant resistance against insect pests.

Combined drought and pathogen stress in chickpea – exploring strategies to combat dry root rot

(PI: Muthappa Senthil-Kumar)

Dry root rot (DRR), caused by Macrophomina phaseolina, is a devastating chickpea disease exacerbated by drought. Our study explored bio-irrigation through common mycorrhizal networks to combat combined DRR and drought stress. Greenhouse experiments using a rhizobox setup showed that the arbuscular mycorrhizal fungus (AMF) Rhizophagus fasciculatus facilitated water transfer from a deep-rooted, drought-tolerant donor (ICC 4958) to a shallow-rooted, susceptible receiver (JG 62), improving the latter's root water status. Confocal microscopy revealed AMF colonization forming a barrier against the pathogen, restricting its growth and reducing disease severity in bio-irrigated plants under combined stress. Multi-locational field trials corroborated these findings, with significantly lower disease incidence in bio-irrigated receiver plants. The current study demonstrates the potential of bio-irrigation through mycorrhizal networks as a sustainable strategy to combat dual DRR and drought stress in chickpea. Prospects include developing a microbial consortium, "Rhizo-Mithra," for rhizosphere bio-engineering against DRR-associated disease complexes under drought.

RSD mediated suppression of NIN and NLP2 transcription is crucial for symbiotic nitrogen fixation

(PI: Sinharoy Senjuti)

Indeterminate nodules establish an oxygen gradient along their longitudinal axis, separating nodule development from symbiotic nitrogen fixation (SNF). The oxygen-rich apex of the nodule promotes development, while leghemoglobin in the nitrogen-fixation zone shields the oxygen-sensitive rhizobial nitrogenase complex. Combining biochemical, genetics, and genomic tools here we demonstrate the pivotal role of the Regulator of Symbiosome Differentiation (RSD), a transcriptional repressor, in the transition from symbiosome development to SNF. The Interacting Protein of DMI3 (IPD3) activates RSD expression in the invasion (ZII) and interzone (ZII-III). RSD interacts physically with the master regulator of nodulation, Nodule Inception (NIN), and also with NIN-like protein (NLP2), unravelling a novel protein-protein interacting domain in both. RSD determines the cell fate of the ZII and ZII-III by suppressing several NIN and NLP2 targets, including Leghemoglobins, Nodule-specific Cysteine Rich genes, and Symbiotic Cysteine-rich Receptor-like Kinase. Our findings depict the critical role of RSD-mediated suppression in facilitating the transition from bacteroid differentiation to SNF.

Deciphering the molecular components involved in the perception of external jasmonic acid-isoleucine

(PI: Vadassery Jyothilakshmi)

Jasmonic acid-isoleucine (JA-Ile) is a plant defense hormone whose cellular levels are elevated upon herbivory. Despite their pivotal role, our understanding of the rapid cellular perception of

JA-Ile is limited. This study identifies cell type-specific JA-Ile-induced Ca2+ signal and its role in self-amplification and PLANT ELICITOR PEPTIDE RECEPTOR (PEPR)-mediated signaling. Using the Ca2+ reporter, R-GECO1 in Arabidopsis, we have characterized a monophasic JA-Ile-dependent Ca2+ signature in leaf epidermal cells. Microarray analysis identified upregulation of receptors, PEPR1 and PEPR2 upon JA-Ile treatment. The pepr1 pepr2 double mutant in R-GECO1 background exhibits impaired external JA-Ile induced Ca2+cyt elevation and impacts the canonical JA-Ile responsive genes. JA responsive transcription factor, MYC2 binds to the G-Box motif of PEPR promoters and activates their expression upon JA-Ile treatment. External JA-Ile amplifies AtPep-PEPR pathway by increasing the AtPep precursor, PROPEP expression. Our work describes a non-canonical PEPR-JA-Ile-Ca2+-MYC2 signaling module through which plants sense JA-Ile rapidly to amplify both AtPep-PEPR and jasmonate signaling.

E. Computational and structural biology

Biochemical Characterization of an Atypical Cas4 protein

(PI: Gaur Vineet)

CRISPR-Cas systems, found in prokaryotes, integrate invading genetic material into the host genome using Cas1, Cas2, and Cas4 proteins. Cas4 proteins are classified into CAS-cas4 and solo Cas4 based on genomic context, with CAS-Cas4 proteins being of particular interest. TON_0321, adjacent to a type IV-C CRISPR cassette in Thermococcus onnurineus is a novel CAS-Cas4 protein, due to its unusual context, therefore, prompting further investigation. TON_0321 was found to be an exonuclease as well as structure-selective endonuclease with no sequence dependency. Therefore, it has potential roles in CRISPR defense as well as non-defense functions. Its unique properties make TON_0321 a promising candidate for CRISPR-based genome editing.

Pseudoalignment-guided lncRNA identification with extended multi-omics annotations in Arabidopsis thaliana

(PI: Kumar Shailesh)

Categorizing lncRNAs into intergenic and antisense transcripts, we aimed to provide a more comprehensive lncRNA annotation, revealing widespread and variable transcription in Arabidopsis, implicating lncRNAs in various facets of plant growth and development. Exploration into lncRNA roles yielded intriguing insights, including notable enrichment of TE sequences within intergenic lncRNAs, suggesting potential involvement in TE-like silencing mechanisms that warrant further investigation. Our analysis of the epigenetic patterns of lncRNAs in Arabidopsis reinforces their widespread silencing role, also focusing on R-loops in lncRNA regulation. Investigation into sRNA association with identified lncRNAs suggests reciprocal regulation between lncRNAs and sRNAs, impacting mRNA expression and participation in the RdDM pathway, further supporting their role in gene silencing. Additionally, we revealed significant colocalization events of lncRNA genes with diverse traits, with more antisense lncRNAs with specific TFBMs facilitating chromatin interactions, some altering in response to environmental stresses.

Deep learning reveals cavity architecture based modulation of ligand binding tunnels in plant StART domains

(PI: Yadav Gitanjali)

StART domains represents an evolutionarily conserved superfamily of lipid transfer proteins widely distributed across the tree of life. This remarkable gene family has long been known as sterol transporters in mammals, but Knowledge remains inadequate in plants, despite significant gene-family expansion.

In this work, we show that plant StART domains retain an ancestral / helix-grip signature, but with subtle variation in cavity architectures, leading to significantly smaller ligand-binding tunnels in the plant kingdom. We identify cavity lining residues (CLRs) responsible for reduction in ancestral tunnel space, and these appear to be class specific, and unique to plants, providing a mechanism for the observed shift in domain function. For instance, mammalian cavity lining residues A135, G181 and A192 have evolved to larger CLRs across the plant kingdom, contributing to smaller sizes, minimal StARTs being the largest, while members of type-IV HD-Zip family show almost complete obliteration of lipid binding cavities, consistent with their present-day DNA binding functions. In summary, this work quantifies plant StART structural & functional divergence, bridging current knowledge gaps.

F. Nutritional traits in crops

Deciphering genetic and metabolic regulation of biochemical traits in cereals and legumes

(PI: Chakraborty Subhra)

Growing population has led to increased global food demand, posing challenge to food security. Rice and chickpea harbours macronutrients and micronutrients, which can combat malnutrition in developing countries. GPC and EAAs are indicators of cereal and legume nutritional quality. Identification of genes involved in regulation of GPC and EAAs provides targets for molecular breeding. Genetic basis underlying regulation of GPC and EAAs in rice and chickpea have not been elucidated in detail. In this study, we constituted diversity panel of 12,000 rice and 10,000 chickpea accessions representing different agro-climatic regions of India. Further, we estimated GPC of 978 rice accessions by Kjeldahl analysis and developed NIR equation. Data depicted that GPC ranged from 5-14%. Similarly, GPC of 148 chickpea accessions by Kjeldahl analysis were in the range of 14-21%. MRM of aminoacids in 104 rice accessions depicted maximum concentration of Glu and minimum of Lys. Data identified novel QTLs linked to rice GPC located on chromosomes 1-12. Novel GPC related QTLs included 60S RP L22-2, ACAD10, MYB, MATE efflux protein, clatharin etc. Novel Lysine QTLs were F-box, HDA19. Our investigation of aroma trait in rice depicted that aroma-related metabolic network was centred on lipid phenylacetate, flavanoid, oxylipin, shikimate, pathways, glycolysis, TCA cycle, GABA and aminoacid pathway. Genotypic-

phenotypic data of chickpea identified novel QTLs linked to GPC located on chromosomes 1-8. Our findings could serve as a valuable resource to enhance regional adaptability, improve GPC and EAAs, decrease antinutrient content, better aroma and unleash the yield potential of food crops.

The C-terminal regulatory domain of Isopropylmalate synthase maintains leucine homeostasis by bypassing an alternative negative feedback loop in plants

(PI: Bisht Naveen Chandra)

In the leucine biosynthesis pathway, homeostasis is achieved through a feedback regulatory mechanism facilitated by binding of the end-product Leu at the C-terminal regulatory domain of the first committed enzyme, isopropylmalate synthase (IPMS). Here, we show that in the absence of its regulatory domain, an unexpected alternative regulatory loop acts to control plant IPMS catalysis. Removal of IPMS regulatory domain using CRISPR/Cas9 significantly reduced the formation of end-product Leu in-planta, but increased the levels of Leu pathway intermediates. Additionally, delayed growth was observed when IPMS devoid of regulatory domain was introduced into IPMS-null mutants of E. coli and Arabidopsis. Combining the metabolomic and biochemical analysis, we found that the Leu pathway intermediate, -ketoisocaproate, was a competitive inhibitor of IPMS with a truncated regulatory domain. Thus, we demonstrate that the C-terminal regulatory domain of IPMS is biologically favored since it maintains Leu homeostasis while bypassing the possibility of competitive inhibition by a pathway intermediate.

Flavonols affect the interrelated glucosinolate and camalexin biosynthetic pathways in Arabidopsis thaliana

(PI: Pandey Ashutosh)

Our study provides new insights into the molecular mechanisms by which flavonols interfere with the relevant signal chains and their molecular targets and presents the first mechanistic model of flavonol-induced modulation of camalexin and aliphatic glucosinolate biosynthesis in the model plant Arabidopsis thaliana. This adds new knowledge to the growing plethora of biological activities of flavonols in plants.

The modulation of several pathways by flavonols, as demonstrated here, further strengthens the view that flavonols act as modulators of plant development and exert phytohormone-like activity in plants. This work thus lays the foundation for detailed investigation into the mechanisms underlying flavonol-mediated regulation of plant growth, development, and metabolism.

Publications and Patents

Publications
(April 2023 to March 2024)

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2024

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5. Jaiswal V, Bandyopadhyay T, Singh RK, Gahlaut V, Muthamilarasan M and Prasad M (2024) Multi-environment GWAS identifies genomic regions underlying grain nutrient traits in foxtail millet (*Setaria italica*). **Plant Cell Reports** 43: 6.

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15. Pandey A, Singh K and Singh AP (2024) Nitrogen forms and their availability-dependent root developmental adaptation in plants. In: Ahanger MA, Bhat JA, Ahmad P, John R (eds), **Improving Stress Resilience in Plants, Chapter 6**. Academic Press, pp 97-117.

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26. Thakro V, Varshney N, Malik N, Daware A, Srivastava R, Mohanty JK, Basu U, Narnoliya L, Jha UC, Tripathi S, Tyagi AK and Parida SK (2024) Functional allele of a *MATE* gene selected during domestication modulates seed color in chickpea. **Plant Journal** 117: 53-71.

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Patents
(April 2023 to March 2024)

S. No.	Title	Date of file/grant of patent
Patents Filed:		
1.	Kapuganti Jagadis Gupta (2023) A formulation and a method for inducing defense response in plants	US Application No.: 18/252,017
2	Kapuganti Jagadis Gupta (2023) A formulation and a method for inducing defense response in plants	UK Application No: 2307555.9
3	Kapuganti Jagadis Gupta, Chakraborty Subhra, Pathak Pradeep Kumar (2023) Method for producing transgenic plants overexpressing non-symbiotic hemoglobin class-1 gene, and applications thereof	Canadian Application No: 3,199,350
4	Kapuganti Jagadis Gupta, Chakraborty Subhra, Pathak Pradeep Kumar (2023) Method for producing transgenic plants overexpressing non-symbiotic hemoglobin class-1 gene, and applications thereof	Australian Application No: 2021382439
5	Bisht Naveen C, Kumar Roshan, Mann Avni, Kumari Juhi (2023) Recombinant expression cassettes for modification of glucosinolate content in plants	PCT Application No. PCT/IN2023/050566
Patents Granted:		
1.	Datta A; Chakraborty N; Chakraborty S; Kamthan M; Kamthan A (2023) Polynucleotide associated ergosterol biosynthesis and uses thereof	Indian Patent No.: 452012
2.	Jha Gopaljee; Yadav Sunil Kumar; Swain Durga Madhab (2023) Novel Protein Against Fungal Pathogens	Vietnam Patent No.:35676

Awards and Honours

Awards and Honours

Faculty

Dr. Subhra Chakraborty

- ❖ Vivek Jyoti Samman Lifetime Achievement Award by Swami Vivekananda University, Kolkata, 2023.
- ❖ Sen Oration Award by Society for Ethnopharmacology, 2024.

Dr. Alok Krishna Sinha

- ❖ Prof. Sudhir Sopory Endowment Lecture Award by Society of Plant Physiology, New Delhi.

Dr. Sabhyata Bhatia

- ❖ Elected Fellow of The Indian National Science Academy (INSA), 2024.

Dr. Gitanjali Yadav

- ❖ Vigyan Vidushi, Outstanding Women Scientists in 75 Years of Indian Independence, 2023.
- ❖ Hamied Fellowship Award, by University of Cambridge, for hosting Dr. Peter-Murray-Rust, February 2024.
- ❖ CV Raman Fellowship Award to Laboratory, for hosting Dr. Marwa Halamy, Egypt, February, 2024.

Dr. Naveen Chandra Bisht

- ❖ Fellow of the Indian National Science Academy (INSA), New Delhi, 2024.

Dr. Jagadis Gupta Kapuganti

- ❖ Fellow Association of Biotechnology and Pharmacy (FABAP), 2023.
- ❖ Fellow of National Academy of Sciences (FNASc), 2023.

Dr. Gopaljee Jha

- ❖ Fellow of the National Academy of Sciences (NASI), India.
- ❖ S. Ramachandran National Bioscience Award for Career Development.

Dr. Senthil-Kumar Muthappa

- ❖ Senior Associate Editor, Applications in Plant Sciences, Journal published by Botanical Society of America.
- ❖ Editor, Plant Physiology Reports published by Indian Society for Plant Physiology, New Delhi.

- ❖ Editor, Journal of Plant Biochemistry and Biotechnology published by The Society for Plant Biochemistry and Biotechnology, New Delhi.

Dr. Jitender Giri

- ❖ Editor in the journal "RICE" and Plant Physiology Reports.
- ❖ Member of International Steering Committee for International Symposium for Rice Functional Genomics (ISRFG).

Dr. Saloni Mathur

- ❖ SERB Mobility Grant, 2023.

Dr. Swarup K. Parida

- ❖ Associate Editor of Theoretical & Applied Genetics.

Dr. Pinky Agarwal

- ❖ Featured as Young Vidushi in the Vigyan Vidushi – 75 Women Trailblazers of Science, by Vigyan Prasar.

Dr. Jyothilakshmi Vadassery

- ❖ Janaki Ammal National Bioscience Award, Department of Biotechnology, 2022.

Dr. Amarjeet Singh

- ❖ Received prestigious INSA Associate Fellows Award 2023.
- ❖ Received Prof. S.K. Sopory Young Scientist Award 2023 by Indian Society of Plant Physiology.

Dr. Ashutosh Pandey

- ❖ INSA Associate Fellows (2023) by the Indian National Science Academy (INSA), New Delhi, 2023.

Students

Mr. Bikas Raul (PI: Dr. Senjuti Sinharoy)

- ❖ Received travel awards from DSt-ITS 2023 and CSIR travel award 2023 to attain 15th European Nitrogen Fixation Conference (ENFC 2023).

Ms. Oindrila Bhattacherjee (PI: Dr. Senjuti Sinharoy)

- ❖ Received travel awards from DSt-ITS 2023 and CSIR travel award 2023 to attain 15th European Nitrogen Fixation Conference (ENFC 2023).

Ms. Kanika Maurya (PI: Dr. Jitender Giri)

- ❖ Received best poster presentation award at ISRFG, UAS, Bengaluru, 2024.

Ms. Rumi (PI: Dr. Jitender Giri)

- ❖ Received best poster presentation award at National Conference of Plant Physiology 2023 at IARI, New Delhi, 2024.

Ms. Rekha (PI: Dr. Jagadis Gupta Kapuganti)

- ❖ 3rd prize for flash talk at International Plant Nitric Oxide Conference, February 2024.

Ms. Prabha Verma (PI: Dr. Gitanjali Yadav)

- ❖ Received best poster award at 50th National Seminar for Crystallography, November 2023.

Ms. Jaishri Rubina Das (PI: Dr. Saloni Mathur)

- ❖ Got selected to participate in Research Opportunities Week (ROW) at the Technical University of Munich (TUM), Germany, October 09 - 13, 2023.

Mr. Baljinder Singh, Ms. Sapna Sharma, Ms. Manisha Yadav, Dr. Sabhyata Bhatia (PI: Dr. Sabhyata Bhatia)

- ❖ Received best poster presentation award at Annual National Conference on Advances in Plant Biology (APB 2024) Innovation and Strategies for Sustainable Agricultural Productivity for Viksit Bharat@2047 Hansraj College, New Delhi, February 10, 2024.

Activities of the Institute

International Visits

Dr. Subhra Chakraborty

- Visited Singapore to attend the 7th AOAPO and 11th AOHUPO-2023 Congress Meeting held during May 6 – 12, 2023.

Dr. Subhra Chakraborty

- Visited Singapore to attend the 7th AOAPO and 11th AOHUPO-2023 Congress Meeting held during May 6 – 12, 2023.

Dr. Gitanjali Yadav

- Visited Italy to attend Gordon Research Conference, Tuscany, Italy, May 07 - 11, 2023.
- Visited University of Catania, Italy and delivered a public lecture, May 12 - 13, 2023.
- Visited University of California, Berkeley and delivered a research talk, Berkeley, USA, June 02, 2023.
- Visited Salzburg, Austria for CODATA International Data Week, Salzburg, Austria, October 22 - 26, 2023.
- Visited University of Leiden, The Netherlands to attend FAIR Data Conference, Leiden, Netherlands January 22 - 27, 2024.

Dr. Ashverya Laxmi

- Visited Prague, Czech Republic to participate and deliver invited talk in “Auxin and cytokinin in plant development”, Prague, Czech Republic, June 2023.

Dr. Jitender Giri

- Visited IRRI, Philippines to attend Indo-UK GCRF networking grant meeting, Philippines, August 15, 2023.

Dr. Jyothilakshmi Vadassery

- Visited Chiba, Japan and delivered invited lecture and hosted the session on Molecular Plant-Insect Interaction at the 33rd International Conference on Arabidopsis Research (ICAR2023), on the topic “Hunting for insect secreted proteins that modulate plant immunity”, Chiba, Japan, June 05 - 09, 2023.
- Visited Leibniz Institute of Plant Biochemistry, Halle, Germany and delivered invited lecture in the International Jasmonate Meeting 2023 on the topic “Identification of a novel gene involved in calcium-mediated jasmonate perception using forward genetic screen in Arabidopsis thaliana”, Halle, Germany August 31, 2023.

- ❖ Visited Academia Sinica, Taipei, Taiwan at “EMBO Day in Taiwan” and delivered a talk on the topic “Understanding the early immune signaling in plant-insect interactions” Sinica, Taipei, October 30, 2023.

Dr. Senjuti Sinharoy

- ❖ Visited PAG Australia to participate in Workshop entitled “RSD Mediated Repression of Transcription in the Invasion Zone Is Crucial for Symbiotic Nitrogen Fixation in Medicago truncatula” PAG Australia, September 20, 2023.

Dr. Shiv Kumar Meena

- ❖ Visited Umeå Plant Science Centre, Umeå, Sweden, August 2023 - October 2023.

Students

Ms. Oindrila Bhattacharjee (PI: Senjuti Sinharoy)

- Visited Naples, Italy to attend and give oral talk at a satellite meeting of the 15th European Nitrogen Fixation Conference 2023, in Naples, Italy, August 31 – September 03 2023.

Mr. Bikash Raul (PI: Senjuti Sinharoy)

- Visited Naples, Italy to attend and give oral talk at a satellite meeting of the 15th European Nitrogen Fixation Conference 2023, in Naples, Italy, August 31 – September 03 2023.

Ms. Apoorva Gupta (PI: Dr. Saloni Mathur)

- Visited Chiba, Japan to participate in 'The 33rd International Conference on Arabidopsis Research' at Chiba, Japan, June 05 – 09, 2023.

Ms. Jaishri Rubina (PI: Dr. Saloni Mathur)

- Das got selected to participate in Research Opportunities Week (ROW) at the Technical University of Munich (TUM), Germany, October 09 - 13, 2023.

Invited Lectures

Dr. Subhra Chakraborty

- ❖ Delivered an invited lecture in the 7th AOAPO and 11th AOHUPO-2023 Congress Meeting held during May 6-12, 2023 at Singapore.
- ❖ Delivered an invited lecture as a Chief Guest on the occasion of World Environment Day on June 5, 2023 at the Shriram Institute for Industrial Research, New Delhi.
- ❖ Co-Chaired a Session "Status of Biodiversity & Agriculture in NE Region: Problems & Prospects" of NASI programme on "S&T intervention for the development of North-East Region specially involving more women" organized by NASI and NEHU Shillong held through online mode during June 14 – 15, 2023.
- ❖ Delivered an invited address in the India Genomics Conclave 2023 as the Guest of Honour organized by GATC in association with AWS at New Delhi on 15th September, 2024.
- ❖ Delivered an invited talk in the International Conference on Scientific Advances in Life Sciences, Agriculture and Food & Nutrition – ICSA 2023 as a Special Guest held at Swami Vivekananda University, Kolkata during September 28 – 30, 2023.
- ❖ Delivered an invited talk in Annual Symposium at IIT Mandi as a Plenary Speaker held during October 7 – 10, 2023 at IIT Mandi.
- ❖ Delivered an invited talk in the National Conference on Science & Tech. for Women Empowerment and Rural Development held at Pt. Ravishankar Shukla University, Raipur through online mode on October 13, 2023.
- ❖ Delivered a Lead lecture in the "International Conference on Biochemical and Biotechnological Approaches for Crop Improvement" organized by Society for Plant Biochemistry and Biotechnology on October 30, 2023.
- ❖ Delivered an Invited Talk in the Women in Science Lecture Series on Frontiers in Science and Engineering organized by NASI Delhi Chapter at DDU College on November 2, 2023.
- ❖ Chaired a Session and delivered an invited talk in the 20th International Symposium on Rice Functional Genomics (ISRFG2023) held at University of Agricultural Sciences, Bangalore during November 3 – 5, 2023.
- ❖ Delivered Presidential Address in the 15th Annual Conference of Proteomics Society of India held during November 18 – 23, 2023 at New Delhi.
- ❖ Delivered an invited lecture in the 6th Refresher Course in Research Methodology organized by UGC-MMTTC, JNU on 30th November, 2023.
- ❖ Chaired a Session on "Forest, Climate & Environmental Security@75" in the 93rd Annual Session of NASI held at BARC Mumbai during 3rd December, 2023.
- ❖ Delivered an invited talk in Global Bio-India on the theme "Transforming Lives-Biosciences to Bioeconomy" held at New Delhi during December 4 – 6, 2023.

- ❖ Delivered an invited talk in the 92nd Annual Meeting of Society of Biological Chemists held at BITS Pilani KK Birla Goa Campus during December 18 – 20, 2023.
- ❖ Delivered an invited Keynote Address at IUAC in a Workshop on 27th December, 2023.
- ❖ Delivered an invited keynote address in the NCS-TCP Awareness Programme held at Gangtok during December 28-31, 2023.
- ❖ Delivered an invited keynote address in the NCS-TCP Awareness Programme held at Jorhat during January 5 – 9, 2024.
- ❖ Delivered an address in the Women Scientists and Entrepreneurs Conclave under IISF held at Faridabad during January 18 – 19, 2024.
- ❖ Delivered an invited lecture in Vistas in Life Science (VLS-2024) held at JNU during January 22 – 24, 2024.
- ❖ Delivered an invited lecture in the 45th Annual Meeting of Plant Tissue Culture Association (India) through online mode on January 23, 2024.
- ❖ Delivered an invited lecture in the International Conference on Molecular Signalling-2024 (ICMS-2024) at University of Hyderabad on February 2, 2024.
- ❖ Co-Chaired a Session on "Women Leaders in Science" in the International Day of Women and Girls in Science held at INSA on 11th February, 2024.
- ❖ Delivered an invited talk in the "Prof. Tuhinadri Sen Memorial Award" conferred by the Society for Ethnopharmacology (SFE) during the 11th International Congress of SFE organized by CSIR-IIIM, Jammu on 16th February, 2024.
- ❖ Delivered an Invited Talk in the International Conference on Fungal Biology & Plant-Microbe Interactions 2024 (ICFBPMI-2024) at Banaras Hindu University on 17th February, 2024.
- ❖ Delivered an invited talk in the "Advances in Proteomics Technologies (APT-2024) Workshops and International Conference" at IIT Bombay on February 19, 2024.
- ❖ Delivered a talk in the 9th Plant Nitric Oxide International Meeting held at Delhi on 28th February, 2024.
- ❖ Delivered an invited talk in the Ashoka Science Research Festival at Ashoka University, Sonipat as Chief Guest on 2nd March, 2024.
- ❖ Delivered an invited lecture in A.P.J. Abdul Kalam College, Kolkata on March 13, 2024.
- ❖ Delivered an invited Keynote Address in the BIC-NNP workshop on Big Data Analysis and Machine Learning at Delhi during March 13 – 15, 2024.
- ❖ Delivered an invited talk in the Proteomics Day at THStI on March 18, 2024.
- ❖ Delivered an invited talk on the occasion of International Women's Day at IISER Bhopal on 18th March, 2024.
- ❖ Delivered an invited talk in the Technical Session on "Roadmap for Viksit Bharat" during 12th Foundation Day of BIRAC held at Delhi on 20th March, 2024.
- ❖ Delivered an invited talk in the 2nd Botanical Congress-2024 as a distinguished speaker held at the University of Burdwan, West Bengal during March 22 – 24, 2024.

Dr. Niranjan Chakraborty

- ❖ Delivered a lecture in "Annual Symposium" at School of Biosciences & Bioengineering, IIT-Mandi, Himachal Pradesh, October 08 - 09, 2023.

Dr. Debasis Chattopadhyay

- ❖ Delivered Dr. Yellapragada SubbaRow Memorial Lecture at, University School of Biotechnology, Indraprastha University on Evolution of Genome Sequencing and its uses in Biology, January 31, 2024.

Dr. Alok Krishna Sinha

- ❖ Delivered a lecture on a topic entitled "A crosstalk between light and MAP kinase signaling during Arabidopsis seedling development"" at Department of Botany, Banaras Hindu University, Varanasi, August 01, 2023.
- ❖ Delivered a lecture on a topic entitled "Interwoven network of Mitogen Activated Protein Kinase cascade in rice" at Bharathidasan University, Tamil Nadu, August 07, 2023.
- ❖ Delivered a lecture on a topic entitled “Probable role of Mitogen-Activated Protein Kinases in the regulation of the cell cycle in rice” at 20th International Symposium on Rice Functional Genomic, 2023 at UAS Bangalore, November 03 - 05, 2023.
- ❖ Delivered lecture on a topic entitled “Mitogen-Activated Protein Kinase switch in the regulation of the cell cycle in rice” at the National Conference of Plant Physiology, 2023 at IARI, New Delhi, December 09 – 11, 2023.
- ❖ Delivered a lecture on a topic entitled “Regulation of Cell Cycle in rice by Mitogen-Activated Protein Kinase switches” at Biotalk 2024, Sister Nivedita University, Kolkata, February 08 – 09, 2024.
- ❖ Delivered a lecture on a topic entitled “Regulation of Cell Cycle in rice by Mitogen-Activated Protein Kinase” at the Institute of Himalayan Bioresources Technology, Palampur, February 22, 2024.

Dr. Sabhyata Bhatia

- ❖ Delivered a talk entitled “Integrated genomic approaches help to delineate novel alleles and candidate genes governing seed protein content (SPC) in chickpea (Cicer arietinum L.)” at SERB Workshop on Molecular Markers and Tissue Culture Assisted Plant Breeding, Division of Genetics, IARI, New Delhi, July 24 – August 02, 2023.
- ❖ Delivered a talk entitled “Dissecting the genetic and molecular basis of seed protein content (SPC) in chickpea (Cicer arietinum L.)” in a workshop on “Utilizing germplasm to identify gene(s)/QTL(s) for root nodules in food legumes” Division of Genetics, IARI, New Delhi, April 05 - 06, 2023.
- ❖ Delivered a talk entitled “Deconvoluting the molecular and genetic intricacies underlying the complex seed protein content trait in chickpea” at 89th Anniversary General Meeting (AGM) of Indian National Science Academy (INSA) at CSIR labs Hyderabad, jointly by CCMB, IICT and NGRI, December 06 – 08, 2023.
- ❖ Delivered a talk entitled “Generating genomic resources for facilitating genetic enhancement of selective Vigna species and Horsegram” at project interactive meeting, ILS, Bhubaneshwar, February 15 – 16, 2024.

- ❖ Delivered a talk entitled “Deconvoluting the molecular and genetic intricacies underlying the complex seed protein content trait in chickpea” at National Conference on 'Plant "Omics": Recent Trends and Applications' Department of Botany, Savitribai Phule Pune University, Pune, February 21 – 22, 2024.

Dr. Manoj Majee

- ❖ Delivered an invited talk on “Rice Seed Vigor and Viability: Role of Protein Repairing Enzymes” at University of Agricultural Sciences (UAS), Bangalore, November 03 - 05, 2023.
- ❖ Delivered an invited talk on “JAZ” by SKIP31: Crossroad for Seed Maturation and Desiccation Tolerance” at SLS, JNU, January 21 - 24, 2024.
- ❖ Delivered an invited talk on SKIP “JAZ” by SKIP31: A Tale of Seed Maturation and Desiccation Tolerance” at Sister Nivedita University, Kolkata, February 08 - 09, 2024,
- ❖ Delivered an invite[1]d talk on SKIP “JAZ” by SKIP31: Crossroad for Seed Maturation and Desiccation Tolerance” at Central University of Haryana, Mahendergarh, March 18 – 23, 2024.

Dr. Gitanjali Yadav

- ❖ Delivered a talk on "Building a Scientific Caliber at School", Tikli Village, Haryana, April 10, 2023.
- ❖ Delivered a talk on "Waste to Wealth, Green Mobility and Sustainable Energy", IIIT Delhi, April 20, 2023.
- ❖ Delivered a talk on "Young Scientists in an Age of Knowledge Colonization" by INYAS Prayojan, April 23, 2023.
- ❖ Delivered a talk on "Climate and Biodiversity" at New Delhi CBN Foundation Community Lecture, April 25, 2023.
- ❖ Delivered a talk on "Supporting Girls and Women in Science", Rural Talk, Balyana Village, Haryana, April 27, 2023.
- ❖ Delivered a talk on "Regulatory Genome Biology ", Shiv Nadar University, Noida, UP, April 28, 2023.
- ❖ Delivered a talk on "Mapping Chemotype to Phenotype and Genotype", IGIB New Delhi, April 29, 2023.
- ❖ Delivered a talk on "Climate Knowledge Hunt via AI", NII New Delhi, May 19, 2023.
- ❖ Delivered a talk on "Role of Alumni Students in Advancing Education", SVC New Delhi IQAC, May 20, 2023.
- ❖ Delivered a talk on "Spatio-Temporal Hyper Networks for Food Security", University of Berkeley, June 02, 2023.
- ❖ Delivered a talk on "AI for Plant Biology and Biodiversity" FSCI FORCE11 Keynote, August 02, 2023.
- ❖ Delivered a talk on "Why Plants are Green" a Podcast Interview for "India Asks Why", August 06, 2023.

- ❖ Delivered a talk on "Regional Languages in Science", Sahitya Kala Akademi, Jaipur, August 13, 2023.
- ❖ Delivered a talk on "Rice Trans-generational Memory Pathways", Shiv Nadar University, Noida, UP, August 19, 2023.
- ❖ Delivered a talk on "Ethics of Gene Editing", a podcast Episode Interview for Delhi Schools, August 21, 2023.
- ❖ Delivered a talk on "A WiS Support Structure in StEMM" DeepC Delhi, August 29, 2023.
- ❖ Delivered a talk on "Using AI in Education", Gujarat House, New Delhi, September 03, 2023.
- ❖ Delivered a talk on "Semantic Climate and Knowledge Neo Colonization", IIC Delhi, September 12, 2023.
- ❖ Delivered a talk on "Living with our Cultural Heritage", Garden of 5 Senses New Delhi, September 21, 2023.
- ❖ Delivered a talk on "Opportunities & Challenges for Women in StEMM" CIRF IHC, New Delhi, September 26, 2023.
- ❖ Delivered a talk on Panelist at UKRI 15th Anniversary Conference, New Delhi, October 18, 2023.
- ❖ Delivered a talk on "Advancing the RDA/CODATA for FAIR", Salzburg, Austria, October 24, 2023.
- ❖ Delivered a talk on "Indigenous Data Sovereignty", Salzburg, Austria, October 25, 2023.
- ❖ Delivered a talk on Plenary Lecture, "AI and Ethics", Salzburg, Austria, October 26, 2023.
- ❖ Delivered a talk on "Green carbon for Food Security", ICAR IBBACI, New Delhi, October 30, 2023.
- ❖ Delivered a talk on "Biodiversity Informatics & AI" Ashoka University, Sonepat Haryana, November 03, 2023.
- ❖ Delivered a talk on "A Breakthrough in Botany via Physics" Online QPB Seminar, U.K, November 15, 2023.
- ❖ Delivered a talk on "Creating Climate Knowledge Champions in India" MRIU, Faridabad, November 21, 2023.
- ❖ Delivered a talk on "Extracting Biological Information from Gene Lists" Cambridge online, November 23, 2023.
- ❖ Delivered a talk on "Introduction to R", Online Cambridge, December 01, 2023.
- ❖ Delivered a talk on "Wikibase for Natural Product Chemistry" Wikimedia Conference, December 02, 2023.
- ❖ Delivered a talk on "Data Visualization using R", Online Cambridge, December 06, 2023.
- ❖ Delivered a talk on "Reflections on Visibility in Science" podcast interview, RCB, Faridabad, December 08, 2023.
- ❖ Delivered a talk on "AI for Climate Justice in India", India Justice Reports, December 15, 2023.
- ❖ Delivered a talk on "Genomics for Nutraceuticals" IARI, New Delhi, December 21, 2023.

- ❖ Delivered a talk on "A 200yo Solution in Physics for a 100yo Question in Botany", IISER Kolkata, January 16, 2024.
- ❖ Delivered a talk on "Interdisciplinary Work in Physics and Botany", Regional YIM, BITS Pilani, January 17, 2024.
- ❖ Delivered a talk on "Enhancing Industry-Academia Partnerships" KUTIC Kurukshetra, January 19, 2024.
- ❖ Delivered a talk on "Using FAIR Data principles in Biology", Leiden, The Netherlands, January 24, 2024.
- ❖ Delivered a talk on "Data Science in R" Online Cambridge Workshop, February 02, 2024.
- ❖ Delivered a talk on "AI over NLP for Climate Action", CDAC Pune, February 6, 2024.
- ❖ Delivered a talk on "Data Transformation using tidyverse" Online Cambridge Workshop, February 09, 2024.
- ❖ Delivered a talk on "Innovations in Swedish India Strengths" IIT Delhi, February 15, 2024.
- ❖ Delivered a talk on "Invasion Biology and Biodiversity", Dheerpur Wetland Park, February 17, 2024.
- ❖ Delivered a talk on "Engaging Marginal Communities" CBN Foundation New Delhi, February 19, 2024.
- ❖ Delivered a talk on "Indian Agri-Tech and Agri-Innovations", Rural Haryana Schools, February 21, 2024.
- ❖ Delivered a talk on "Climate Knowledge Champions" MRISS, Faridabad, February 27, 2024.
- ❖ Delivered a talk on Unlocking Innovative Solutions for SDGs", Bioomie UDSC, Delhi, February 28, 2024.
- ❖ Delivered a talk on "Open Access and Democratization of Knowledge for Climate, Biodiversity, and Sustainability" Hans Raj College, New Delhi, February 28, 2024.
- ❖ Delivered a talk on "WenYan Mentorship for WiS Chemistry" PKC Pune, March 06, 2024.
- ❖ Delivered a talk on "From Genomes to Regulomes", Guwahati University, March 07, 2024.
- ❖ Delivered a talk on "The Nano dash for Nano Publications", NIPGR, March 13 - 15, 2024.
- ❖ Delivered a talk on "Women & Girls in AI: A Force to Reckon" Kotak Kanya Scholarships, March 15, 2024.
- ❖ Delivered a talk on "Advances in Invasion Genomics" Pondicherry University, March 16, 2024.
- ❖ Delivered a talk on "Breaking Barriers and Making Plant Codes", Plantae Presents, March 21, 2024.
- ❖ Delivered a talk on "Data Repositories and Data Valuation", GNDU Amristar, March 22, 2024.
- ❖ Delivered a talk on "Using R-dplyr for Data Transformation", Cambridge Workshop, March 25, 2024.
- ❖ Delivered a talk on "Analyzing GSEA and Gene Lists in R", Cambridge Workshop, March 26, 2024.

Dr. Ashverya Laxmi

- ❖ Delivered a talk entitled “Auxin-cytokinin nexus: the shady side of story” at “Auxin and cytokinin in plant development” ACPD Prague, Czech Republic, June 2023.
- ❖ Delivered a talk on “Shady side of light signaling” at NISER Bhubaneshwar, January 2024.
- ❖ Delivered a talk on “Jasmonic Acid in concert with light and glucose signalling regulates lateral root branching angle in Arabidopsis thaliana seedlings” at ISSER Bhopal, January 2024.

Dr. Naveen Chandra Bisht

- ❖ Delivered an invited talk entitled “Indole glucosinolate over-accumulation affects plant fitness and tolerance to biotic stress in Brassica juncea” on July 20, 2023 during the Max Planck Partner Group Kick-off Workshop at IISER Pune, July 19 – 22, 2023.
- ❖ Delivered an Invited lecture on “Development of low-seed, high-leaf glucosinolate oilseed mustard (Brassica juncea) by Genome Editing” during the 30th Annual Group Meeting on All India Coordinated Research Project on Rapeseed-Mustard (AICRP-RM) jointly organized by ICAR-Directorate of Rapeseed-Mustard Research, Bharatpur and SKUASt-Jammu at SKUASt-Jammu, August 03 - 04, 2023.
- ❖ Delivered an invited talk “Genome Editing for Improving Oil Quality of the Polyploid Brassica juncea” during the three-day workshop on Genome Editing organized by NABI, Mohali, August 21 – 24, 2023.
- ❖ Delivered an invited lecture on “Genome Editing in Polyploid Crops” on 04 Sept 2023, during the Genome Editing: The Next Frontier in Agricultural Innovation organized by the Division of Plant Physiology, ICAR-IARI, New Delhi, August 28 - September 06, 2023.
- ❖ Delivered an invited talk on “Development of genetically modified crops and its regulation” during the ‘Training Program on Genomic Tools in Plant Genetic Resource Management’ organized by ICAR-National Bureau of Plant Genetic Resources, New Delhi, September 18 - 29, 2023.
- ❖ Delivered an invited talk entitled “Genome Editing for an Ideal Low-seed, High-leaf Glucosinolate Oilseed Mustard” during the XVI Agricultural Science Congress organized by National Academy of Agricultural Sciences, India at ICAR-CMFRI, Kerala, October 10 - 13, 2023.
- ❖ Delivered an invited talk entitled “Genome Editing in Polyploid Crops: Indian oilseed mustard (Brassica juncea) a case study” during the International Conference and Hands-on workshop on Redesigning Crops for Smart Agriculture, ICGEB, New Delhi, November 06 - 10, 2023.
- ❖ Delivered an invited talk entitled “Genomics and gene-editing for secondary metabolites with reference to glucosinolates in Brassica crops” in the World Bank – ICAR funded National Agricultural Higher Education Project (NAHEP) sponsored Students Training on “Learning Genomic tools and techniques for improvement of Vegetable crops” conducted by Division of Vegetable Science, ICAR-IARI, New Delhi, November 10 - 20, 2023.
- ❖ Delivered an invited talk entitled “Targeted editing of glucosinolate transporters family genes

in polyploid Brassica juncea" during the Workshop on Plant Genome Editing Using CRISPR/Cas9 sponsored by DSt-SERB and Sharda University, November 30 – December 02, 2023.

- ❖ Delivered an invited talk entitled "Structural basis of glucosinolate diversity and its tissue-specific engineering in Brassicaceae" during the 10th Annual Biology Meet, Department of Biological Sciences, IISER Bhopal, January 10 - 11, 2024.
- ❖ Delivered an invited talk entitled "Breeding for seed quality traits in Indian mustard by genome editing" during the 7th International Conference on Plant Genetics and Genomics on the theme "GM Crops and Genome Editing - Promoting Agrobiodiversity Use for Sustainable Agricultural Development" held at NASC Complex, Pusa, New Delhi, February 16 - 17, 2024.
- ❖ Delivered an invited talk entitled "Genome editing for low-seed, high-leaf glucosinolate mustard" in the DSt-SERB workshop titled "Application of Molecular and Genomic Tools for Biofortification in Crops," organized by the Division of Genetics, ICAR-Indian Agricultural Research Institute, New Delhi, March 05 - 07, 2024.

Dr. Jagadis Gupta Kapuganti

- ❖ Delivered an invited talk at on Plant Symbiotic Interactions at Vasant Vally School, New Delhi, July 2023.
- ❖ Delivered an invited talk at on Phytoglobin-Nitric oxide cycle in anaerobic germination and submergence tolerance of deepwater rice, Centurian University of Technology, Bhubaneshwar, July 2023.
- ❖ Delivered an invited talk at Center of Innovative and Applied Bioprocessing (CIAB): High Performance Biomanufacturing on topic "Nitric oxide signaling and potential applications in Plants" September 09, 2023.
- ❖ Delivered an invited talk at Basics to Create a Successful Bio-Enterprise Workshop, BBB Bionest, RCB, Faridabad, October 2023.
- ❖ Delivered an invited talk at Chandigarh Science Congress on topic Innovator ki Kahani, October 14, 2023.
- ❖ Delivered an invited talk at Webinar on Innovative technology and Enhance Shelf-life of fruits and vegetables: From basic research to application-oriented research at Mangalayatan University, Jabalpur, October 17, 2023.
- ❖ Delivered an invited talk at International Plant Nitric Oxide Conference, February 2024.
- ❖ Delivered an invited talk at Indian Rice Research Institute, March 15, 2024.

Dr. Gopaljee Jha

- ❖ Delivered an invited talk on "Exploiting endophytic microbes for sustainable agriculture" on teacher's day at CSIR-IHBT, Palampur, Himachal Pradesh, September 05, 2023.
- ❖ Delivered an invited talk on "The multifaceted role of prophage tail protein during endophytic growth and plant protection" at Department of Botany, University of Allahabad, September 11, 2023.

- ❖ Delivered an invited talk entitled “Multifaceted role of prophage tail protein of Burkholderia bacteria in plant protection” at BIOANVESHANA 2024, University of Hyderabad, February 14 – 18, 2024.
- ❖ Delivered an invited talk at MIPAM 2024, Central Tribal University, Vizianagaram, March 18 - 20, 2024.

Dr. Senthil-Kumar Muthappa

- ❖ Delivered invited talk entitled ‘Utilization of virus-induced silencing (VIGS) tool to aid the plant breeding and gene identification from QTLs’ at training programme on “Molecular Breeding Tools and Techniques on Horticultural Crops” under SERB-DSt Karyashala program at Division of Fruits and Horticulture Technology, ICAR-IARI, New Delhi, October 09, 2023.
- ❖ Delivered invited talk entitled ‘Unveiling Stress Combinations and their Interactions in Plants (SCIP) Database: A Breeder's Guide to What Lies Within for Developing Climate-Resilient Crops Centre for Plant Breeding and Genetics’ at CAFT training on "Smart Breeding for Climate Smart Agriculture" at Tamil Nadu Agricultural University, Coimbatore, December 06, 2023.
- ❖ Delivered invited talk entitled ‘Stress Combinations and their Interactions in Plants Database (SCIPDb): A one-stop resource to study combined stress responses in plants’ at National Conference of Plant Physiology-2023 on ‘Physiological and Molecular Approaches for Climate Smart Agriculture’ at Dr. B.P. Pal Auditorium, ICAR-Indian Agricultural Research Institute, New Delhi, December 10, .2023.
- ❖ Delivered invited talk entitled ‘Genetic Dance of Healing Plants: Decoding the Molecular Tapestry’ at Siddha Day & International Conference on ‘Siddhas: Mystic Cults, Symbolism and Spiritual Significances’ organized by Sri Aurobindo Society in collaboration with Department of Tourism & Department of Art and Culture, Government of Puducherry, December 29, 2023.
- ❖ Delivered invited talk entitled ‘Unveiling Stress Combinations and their Interactions in Plants (SCIP) Database: A Breeder's Guide to What Lies Within for Developing Climate-Resilient Crops’ at Tamil Nadu Rice Research Institute, Tamil Nadu Agricultural University TNAU, Aduthurai, January 01, 2024.
- ❖ Delivered invited talk entitled ‘Climate Smart Crops’ at Pandit Jawaharlal Nehru College of Agriculture and Research Institute, Karaikal, Puducherry, January 05, 2024.
- ❖ Delivered invited talk entitled ‘Stress combination and their interactions in crops’ at Agricultural College and Research Institute AC&RI, Tamil Nadu Agricultural University TNAU, Kudumiyanmalai, January 11, 2024.
- ❖ Delivered invited talk entitled ‘Dry root rot in pulses – stress tolerance strategies’ Department of Crop Physiology, TNAU, Coimbatore, January 19, 2024.
- ❖ Delivered invited talk entitled ‘Navigating the Plant Disease Triangle Amidst Climate Change: Revealing Stress Combinations and Interactions in Plants (SCIP) Resource’ at international conference on fungal biology an plant-microbe interactions 2024 ICFBPMI-2024 organised by Banaras Hindu University, February 18, 2024.

- ❖ Delivered invited talk entitled 'Virus-Induced Gene Silencing as a Tool for Accelerated Plant Functional Genomics' at Indian Science Academies' (IASc, NASI, and INSA)-sponsored refresher course organized at the School of Sciences, JAIN (Deemed-to-be University) Bangalore, February 20, 2024.
- ❖ Delivered invited talk entitled 'Stress Combinations and their Interactions in Plants Database (SCIPDb): A one-stop resource for combined stress-phenomics' at ICAR sponsored winter school on Phenotyping horticultural crops for abiotic stress tolerance for enhancing resilience under climate change conditions at Indian Institute of Horticultural Research, Hesaraghatta, Bangalore February 20, 2024.
- ❖ Delivered a talk to the visiting college students from College of Agriculture, Hassan under University of Agricultural Sciences GKVK on the topic 'Stress interaction & combined stresses in plants' at NIPGR, on March 03, 2024.
- ❖ Delivered invited talk entitled 'Stress Combinations and their Interactions in Plants Database' at Indian Biological Data Centre, Faridabad at AIBC 2024- 17th Annual International Biocuration Conference, March 08, 2024.
- ❖ Delivered invited talk entitled 'Stress combinations and their interactions: A one stop resource on combined stress response under changing climate' at ICAR Research Complex for NEH Region, Umiam, Shillong at ICAR training programme on "Emerging climatic and edaphic stress challenges and their management in hill agriculture under changing climate" March 12, 2024.
- ❖ Delivered invited talk entitled 'Stress Combinations and their Interactions in Plants Database (SCIPdb): A Comprehensive Interactive Repository of Biotic and Abiotic Stress Responses' at Department of Plant Sciences, University of Hyderabad, at International Symposium on Plant Biology and Functional Genomics (ISPBFG 2024), March 14, 2024.
- ❖ Delivered invited talk entitled 'Navigating the Plant Disease Triangle Amidst Climate Change: Revealing Stress Combinations and Interactions in Plants (SCIP) Resource' at the interactive meet on 'Molecular Intricacies of Plant Associated Microorganisms 2024' Organized jointly by Central Tribal University of Andhra Pradesh (CTUAP), and Centurion University at Vizianagaram, March 19, 2024.

Dr. Jitender Giri

- ❖ Delivered an invited talk at 20th International Rice Functional Genomics Symposium (20th ISRFG2023), UAS Bangalore, November 2023.
- ❖ Delivered an invited talk as lead speaker at National Conference of Plant Physiology, IARI, New Delhi, December 2023.
- ❖ Delivered a talk entitled "Genetic Engineering and Gene-editing for improving phosphate use efficiency in rice" at the 7th International Conference on Plant Genetics and Genomics, NASC complex, Pusa, New Delhi, on February 16, 2024.
- ❖ Delivered an invited talk in workshop on "Advances in Plant Metabolic Engineering" at Central University of Punjab, Bhatinda, Punjab, March 16, 2024.

Dr. Saloni Mathur

- ❖ Delivered a talk entitled “A tryst with understanding gene regulation: investigating the roles of microRNAs” at Gargi College Botanical Society Alumnae Lecture Series, New Delhi, January 22, 2024.

Dr. Swarup K. Parida

- ❖ Delivered a talk on "Next-Generation Molecular Breeding for a Food Sufficient Future" in International Conference on Biochemical and Biotechnological Approaches for Crop Improvement" (IBBACI 2023), NASC Complex in New Delhi, October 30, 2023.
- ❖ Delivered a talk on "Pangenome-based GWAS for Accelerated Crop Improvement in Rice” in the International Symposium on Rice Functional Genomics (ISRFG-2023)”, UAS, Bangalore, November 03, 2023.
- ❖ Delivered a talk entitled “Next-Generation Genomic Tools for Crop Improvement” in the National Agricultural Higher Education Project (NAHEP)-Centre for Advanced Agricultural Science and Technology (CAASt) Training Program”, IARI, New Delhi, November 15, 2023.
- ❖ Delivered a invited Lecture and Member of Panel Discussion on “Genome Editing in Horticultural Crops” in 10th Indian Horticultural Congress at College of Veterinary Science campus, Assam Agricultural University, Guwahati, Assam, December 07, 2023.

Dr. Pinky Agarwal

- ❖ Delivered an invited talk entitled “Cytological, transcriptome and miRNome analyses to determine factors regulating rice grain size” at 2nd International Conference on Plant Physiology and Biotechnology, Lovely Professional University, Jalandhar, Punjab, April 21, 2023.

Dr. Jyothilakshmi Vadassery

- ❖ Delivered invited lecture at Center for Ecological Sciences, Indian Institute of Science (IISc) at “SERB School on Chemical Ecology” on the topic “Plant perception of insect herbivory and role of ion channels and receptors in immune response activation” July 10, 2023.
- ❖ Delivered invited lecture at 38th Annual Meeting of the International Society of Chemical Ecology (ISCE 2023) at Indian Institute of Science (IISc) on the topic “Metabolomic basis of differential defense responses in maize genotypes on fall armyworm herbivory”, July 24, 2023.
- ❖ Delivered a talk on “Introduction to Metabolomics” on Education Day, November 19, 2023.
- ❖ Delivered invited lecture at 15th Annual Meeting of the PSI “International Conference on Integrated Proteomics- Application in food, nutrition and health” on the topic “High-throughput metabolomics to study host plant resistance on biotic interactions”, November 22, 2023,
- ❖ Delivered invited lecture at “Emerging Frontiers in Modern Biology” BSBE Winter Symposium, on the topic “Ion Channels in activation of plant immunity against insect herbivores” at IIT Kanpur December 09, 2023.
- ❖ Delivered invited lecture at “National Conference on Plant Physiology-2023 (NCPP-2023) at

IARI, New Delhi on the topic “High-throughput metabolomics to study host plant resistance on biotic interaction” December 11, 2023.

Dr. Aashish Ranjan

- ❖ Delivered a talk entitled “Harnessing Natural Variation to Integrate Leaf Development and Photosynthesis in Rice' at 20th International symposium on Rice Functional Genomics at University of Agricultural Sciences, Bangalore, November 03, 2023.
- ❖ Delivered a talk entitled “Optimizing leaf developmental attributes for increasing photosynthetic efficiency: Insights from transcriptomics and GWAS” at National Conference on Plant Physiology-2023 (NCPP-2023) at ICAR-Indian Agricultural Research Institute (IARI), New Delhi, December 10, 2023.
- ❖ Delivered a talk entitled “Genomics Approaches to Investigate Plant Structure and Function for Food Security" at National Seminar on Advancements in Plant Sciences at St. Berchmans College, Changanassery, Kerala, January 05, 2024.
- ❖ Delivered a talk entitled “Genomics Approaches to Investigate Plant Structure and Function: Case Studies with Photosynthesis and Environmental Signaling” at Centre for Advanced Faculty Training (CAFT) training programme on Statistical and Computational Advances for Bioinformatics Data Analysis in Agriculture: Practical Aspects at ICAR-IASRI, New Delhi, January 08, 2024.
- ❖ Delivered a talk entitled “Cross-species transcriptomic insights into shade avoidance and thermomorphogenesis” at EMBO-International Society of Plant Photobiology Satellite Meeting, Indian Institute of Science Education and Research (IISER), Bhopal, January 15, 2024.
- ❖ Delivered a talk entitled “Photosynthesis at the interface of leaf developmental features: A genomic perspective” at National Symposium on Plant Biology in the Post-Genomic Era: Strategies for Crops and Mankind at Sister Nivedita University, Kolkata, February 09, 2024.
- ❖ Delivered a talk entitled "Photosynthesis at the interface of leaf developmental features: Insights from natural variation and genomics" at International Symposium on Plant Biology and Functional Genomics (ISPBFG 2024), Hyderabad, March 13, 2024.

Dr. Senjuti Sinharoy

- ❖ Delivered a talk entitled “Peripheral vascular strand development in nodules is controlled by a bHLH/HLH heterodimer” in a symposium on Research Opportunities and Higher Study in Germany jointly organized by School of Biotechnology, Jawaharlal Nehru University, New Delhi and Department of Bioscience and Biomedical Engineering, Indian Institute of Technology Indore in collaboration with DAAD India and the society for the Integrative Biosciences. July 28, 2023.
- ❖ Delivered a departmental seminar on topic entitled “Peripheral vascular strand development in nodules is controlled by a bHLH/HLH heterodimer” at College of Science UAE University, Al Ain, UAE, November 16, 2023.

- ❖ Delivered a talk entitled “Peripheral vascular strand development in nodules is controlled by a bHLH/HLH heterodimer” in International Conference on “Seedless vascular plant research and transdisciplinary approaches: Biodiversity exploration and sustainable livelihood.” Department of Botany, University of Kalyani, November 23, 2023.
- ❖ Delivered a talk entitled “Precision in Oxygen Levels: The Key to ‘Symbiotic Nitrogen Fixation’ Success!” at International Conference on 'Physiology to Pathology: Finding the therapeutic roadmap' at Amity University Kolkata, March 09, 2024.
- ❖ Delivered a talk entitled “Two plant transcription factors play a crucial role in balancing both growth and Biological Nitrogen Fixation by Rhizobium within legume nodules” at Molecular Intricacies of Plant Associated Microorganisms (MIPAM)-2024, jointly organized by Central Tribal University of Andhra Pradesh, Vizianagaram, and Centurion University, Vizianagaram, March 18 - 20, 2024.

Dr. Amar Pal Singh

- ❖ Delivered an invited talk entitled “Developmental reprogramming in plants during nutrient stress” in the National Conference on "Recent Advances in Plant Sciences and Biotechnology" at the School of Biological Sciences and Biotechnology (Botany Discipline) Goa University, Goa, October 26 - 27, 2023.
- ❖ Delivered an invited talk entitled “Root developmental adaptation mechanisms in plants during low nitrogen availability” in the “National Conference of Plant Physiology-2023”, December 09 - 11, 2023.

Dr. Amarjeet Singh

- ❖ Delivered an invited talk entitled “Dissecting the signaling networks for enhanced stress tolerance and crop improvement” at INSA Associate Fellows-2023 Lecture at 89th Anniversary General Meeting of INSA at CSIR-CCMB, CSIR-IICT, CSIR-NGRI, Hyderabad, December 06 – 08, 2023.
- ❖ Delivered an invited talk entitled “Lipid signaling for stress tolerance in plats” based on theme Youth & the dream of Viksit Bharat @ 2047 at Department of Botany, Sri Pratap College, Srinagar, Kashmir, January 05, 2024.

Dr. Shailesh Kumar

- ❖ Delivered a lecture at Atma Ram Sanatan Dharma College, University of Delhi, New Delhi, February 27, 2024.
- ❖ Delivered a lecture on topic entitled “Surge of genomics datasets for the identification of novel RNAs in plants” at Tamil Nadu Agriculture University (TNAU), Coimbatore, March 06, 2024.
- ❖ Delivered a lecture on topic entitled “Surge of genomics datasets for the identification of novel RNAs in plants” at National Institute of Plant Genome Research, New Delhi, March 13, 2024

Dr. Ashutosh Pandey

- ❖ Delivered an expert Talk on the title "Waste biomass to high-value metabolite production; opportunities and challenges" in faculty development program (FDP) at CIAB, Mohali, April 01, 2023.
- ❖ Delivered a talk in DSt-SERB-sponsored Accelerate Vigyan high-end workshop on "Molecular Markers and Tissue Culture Assisted Plant Breeding" organized by the Division of Genetics, (ICAR-IARI) on the topic "NCS-TCP: Encouraging entrepreneurs and driving socio-economic wellness using plant tissue culture technology", July 27, 2023.
- ❖ Delivered an invited talk on “Pathway engineering in food crops for enhancing nutritional value and food security” on Alumni for SDG Web Talk series, 2023 this year for the SDG 3: Good Health and Well-Being organised jointly by Deutscher Akademischer Austauschdienst (DAAD), New Delhi and Jakarta on August 23, 2023.
- ❖ Delivered a lead lecture in a National Conference on “Recent Advances in Plant Sciences and Biotechnology” in School of Biological Sciences and Biotechnology, Goa University on the topic “Phytochemistry and Bioprospecting", October 27, 2023.
- ❖ Delivered an oral presentation on "Pathway engineering in food crops for enhancing nutritional value and food security" at IBBACI in NASC Complex, October 30, 2023.
- ❖ Delivered an invited talk on “Pathway engineering in food crops for enhancing nutritional value and stress response” at the 89th Anniversary General Meeting of INSA on December 07, 2023 hosted by CSIR-NGRI-CCMB-IICT, Hyderabad, December 06 - 08, 2023.
- ❖ Delivered an invited talk on “Pathway engineering in food crops for enhancing nutritional value and stress response” at the Department of Biochemistry, Central University Punjab, Bathinda, sponsored by the Science and Engineer Research Board (SERB) under the ‘KARYASHALA’ scheme of Accelerate Vigyan on "Advances in Plant Metabolic Engineering", March 16, 2024.

Dr. Prabhakaran Soundararajan

- ❖ Delivered lecture on topic, “Transcriptomics and its application in vegetable crops” organized by World Bank at Division of Vegetable Science, ICAR-Indian Agricultural Research Institute, New Delhi, November 10, 2023.

Participation in National/International Conference/Workshops

Faculty

Dr. Subhra Chakraborty

- Participated in the 7th AOAPO and 11th AOHUPO-2023 Congress Meeting held during May 6-12, 2023 at Singapore.
- Participated as a Chief Guest on the occasion of World Environment Day on June 5, 2023 at the Shriram Institute for Industrial Research, New Delhi.
- Participated and Co-Chaired a Session "Status of Biodiversity & Agriculture in NE Region: Problems & Prospects" of NASI programme on "S&T intervention for the development of North-East Region specially involving more women" organized by NASI and NEHU Shillong held through online mode during June 14 – 15, 2023.
- Participated in the Industry-Academia Meet, SYNCHN organized by THStI Faridabad on July 14, 2023.
- Participated in the 8th International Conference on Women in Physics (ICWIP-2023) organized by TIFR Mumbai during July 10 – 14, 2024 through online mode.
- Participated in the Global Food Security Summit 2023 as a Special Guest and a Session on Exploring Solutions for Food Security - Learnings from Food Banking organized by the Global FoodBanking Network on 8th August, 2023 at New Delhi.
- Participated in the India Genomics Conclave 2023 as the Guest of Honour organized by GATC in association with AWS at New Delhi on 15th September, 2024.
- Participated in the International Conference on Scientific Advances in Life Sciences, Agriculture and Food & Nutrition – ICSA 2023 as a Special Guest held at Swami Vivekananda University, Kolkata during September 28 – 30, 2023.
- Participated in the Annual Symposium at IIT Mandi as a Plenary Speaker held during October 7 – 10, 2023 at IIT Mandi.
- Participated in the National Conference on Science & Tech. for Women Empowerment and Rural Development held at Pt. Ravishankar Shukla University, Raipur through online mode on October 13, 2023.
- Participated in the Workshop on "Basics to Create a Successful Bio-Enterprise" held at RCB Faridabad on October 27, 2023.
- Participated in the "International Conference on Biochemical and Biotechnological Approaches for Crop Improvement" organized by Society for Plant Biochemistry and Biotechnology on October 30, 2023.
- Participated in the Women in Science Lecture Series on Frontiers in Science and Engineering organized by NASI Delhi Chapter at DDU College on November 2, 2023.

- ❖ Participated in the 20th International Symposium on Rice Functional Genomics (ISRFG2023) held at University of Agricultural Sciences, Bangalore during November 3 – 5, 2023.
- ❖ Participated in the 15th Annual Conference of Proteomics Society of India held during November 18 – 23, 2023 at New Delhi.
- ❖ Participated in the 6th Refresher Course in Research Methodology organized by UGC-MMTTC, JNU on 30th November, 2023.
- ❖ Participated and Chaired a Session on "Forest, Climate & Environmental Security@75" in the 93rd Annual Session of NASI held at BARC Mumbai during 3rd December, 2023.
- ❖ Participated in the Global Bio-India on the theme "Transforming Lives-Biosciences to Bioeconomy" held at New Delhi during December 4 – 6, 2023.
- ❖ Participated in the 92nd Annual Meeting of Society of Biological Chemists held at BITS Pilani KK Birla Goa Campus during December 18 – 20, 2023.
- ❖ Participated in the IUAC Workshop on 27th December, 2023.
- ❖ Participated in the NCS-TCP Awareness Programme held at Gangtok during December 28-31, 2023.
- ❖ Participated in the NCS-TCP Awareness Programme held at Jorhat during January 5 – 9, 2024.
- ❖ Participated in the Women Scientists and Entrepreneurs Conclave under IISF held at Faridabad during January 18 – 19, 2024.
- ❖ Participated in the Vistas in Life Science (VLS-2024) held at JNU during January 22 – 24, 2024.
- ❖ Participated in the 45th Annual Meeting of Plant Tissue Culture Association (India) through online mode on January 23, 2024.
- ❖ Participated in the International Conference on Molecular Signalling-2024 (ICMS-2024) at University of Hyderabad on February 2, 2024.
- ❖ Participated and Co-Chaired a Session on "Women Leaders in Science" in the International Day of Women and Girls in Science held at INSA on 11th February, 2024.
- ❖ Participated in the "Prof. Tuhinadri Sen Memorial Award" conferred by the Society for Ethnopharmacology (SFE) during the 11th International Congress of SFE organized by CSIR-IIIM, Jammu on 16th February, 2024.
- ❖ Participated in the International Conference on Fungal Biology & Plant-Microbe Interactions 2024 (ICFBPMI-2024) at Banaras Hindu University on 17th February, 2024.
- ❖ Participated in the "Advances in Proteomics Technologies (APT-2024) Workshops and International Conference" at IIT Bombay on February 19, 2024.
- ❖ Participated in the 9th Plant Nitric Oxide International Meeting held at Delhi on 28th February, 2024.
- ❖ Participated in the Ashoka Science Research Festival at Ashoka University, Sonipat as Chief Guest on 2nd March, 2024.
- ❖ Participated in A.P.J. Abdul Kalam College, Kolkata on March 13, 2024.
- ❖ Participated in the BIC-NNP workshop on Big Data Analysis and Machine Learning at Delhi

during March 13 – 15, 2024.

- ❖ Participated in the Proteomics Day at THStI on March 18, 2024.
- ❖ Participated in the occasion of International Women's Day at IISER Bhopal on 18th March, 2024.
- ❖ Participated in the Technical Session on "Roadmap for Viksit Bharat" during 12th Foundation Day of BIRAC held at Delhi on 20th March, 2024.
- ❖ Participated in the 2nd Botanical Congress-2024 as a distinguished speaker held at the University of Burdwan, West Bengal during March 22 – 24, 2024.

Dr. Debasis Chattopadhyay

- ❖ Participated in National Symposium on Plant Biology in the post-genomic era: strategies for crops and human at Sister Nivedita University, Kolkata, February 07 - 09, 2024.

Dr. Alok Krishna Sinha

- ❖ Participated and delivered a lecture at 20th International Symposium on Rice Functional Genomic, 2023 at UAS Bangalore, November 03 – 05, 2023.
- ❖ Participated and delivered a lecture at the National Conference of Plant Physiology, 2023 at IARI, New Delhi, December 09 – 11, 2023.
- ❖ Participated and delivered a lecture at Biotalk 2024, Sister Nivedita University, Kolkata, February 08 – 09, 2024

Dr. Manoj Majee

- ❖ Participated in 20th International Symposium on Rice Functional Genomics (ISRFG2023) at the University of Agricultural Sciences (UAS), Bangalore on November 03 - 05, 2023.
- ❖ Participated in Vistas in Life Sciences 2024, SLS JNU, New Delhi, January 21 - 24, 2024.
- ❖ Participated in "National Symposium on Plant Biology in the Post-Genomic Era: Strategies for Crops and Mankind" at Sister Nivedita University, Kolkata, February 08 - 09, 2024,
- ❖ Participated in workshop on "Methods of plant Abiotic Stress and Analysis" at Academic Block-1, Central University of Haryana, Mahendergarh, March 18 – 23, 2024.

Dr. Gitanjali Yadav

- ❖ Participated in Gordon Research Conference, Tuscany, Italy, May 07 - 11, 2023.
- ❖ Participated in CODATA International Data Week, Salzburg, Austria, October 22 - 26, 2023.
- ❖ Participated in ICAR IBBACI Conference, New Delhi, October 28 - 30, 2023.
- ❖ Participated in Wikibase Wikimedia Conference, December 02, 2023.
- ❖ Participated in Faculty Development Program, IARI, New Delhi, December 04 - 21, 2023.
- ❖ Participated in Annual Research Day, IISER Kolkata, January 16, 2024.
- ❖ Participated in Regional YIM, BITS Pilani, January 17 - 19, 2024.
- ❖ Participated in Annual TBIC Meeting, KUTIC Kurukshetra, January 19, 2024.
- ❖ Participated in "The Road to FAIR & Equitable Data", University of Leiden, The Netherlands,

January 22 - 27, 2024.

- ❖ Participated in Bioinformatics Research Consortium Meeting, Asia Pacific APBioNET, February 01, 2023.
- ❖ Participated in Symposium on Accelerating Exascale Biology, CDAC Pune, February 04 - 07, 2024.
- ❖ Participated in BioNomie, National Seminar on AI in Biology, Delhi University, February 27 - 28, 2024.
- ❖ Participated in Workshop on Genomics in Agriculture, Guwahati University, March 01 - 07, 2024.
- ❖ Participated in WenYan Launch Event, PKC Pune, March 06, 2024.
- ❖ Participated in Indo-Nordic Spring Water Summit, March 12, 2024.
- ❖ Participated in Workshop on Bioinformatics & Computational Biology, NIPGR, March 13 - 15, 2024.
- ❖ Participated in Kotak Kanya Scholarships, March 15, 2024.
- ❖ Participated in Annual Bioinformatics Workshop, Pondicherry University, March 16, 2024.
- ❖ Participated in SERB Karya Shala, GNDU Amritsar, March 18 - 24, 2024.
- ❖ Participated in Celebrating Women in Plant Science, Plantae ASPB Webinar, March 21, 2024.

Dr. Ashverya Laxmi

- ❖ Participated in “Auxin and cytokinin in plant development” ACPD at Prague, Czech Republic, June 2023.
- ❖ Participated in "Shady side of light signaling" at NISER Bhubaneshwar, January 2024.
- ❖ Participated in Jasmonic Acid in concert with light and glucose signalling regulates lateral root branching angle in Arabidopsis thaliana seedlings at ISSER Bhopal, January 2024.

Dr. Jagadis Gupta Kapuganti

- ❖ Participated and delivered an invited talk on Phytoglobin-Nitric oxide cycle in anaerobic germination and submergence tolerance of deepwater rice, Centurian University of Technology, Bhubaneshwar, July 2023.
- ❖ Participated and delivered an invited talk on Plant Symbiotic Interactions, Vasant Vally School, New Delhi, July 2023.
- ❖ Participated and delivered an invited talk “Nitric oxide signaling and potential applications in Plants” at Center of Innovative and Applied Bioprocessing (CIAB): High Performance Biomanufacturing, September 09, 2023.
- ❖ Participated and delivered an invited talk at Chandigarh Science Congress on Innovator ki Kahani, October 14, 2023.
- ❖ Participated and delivered an invited talk at Mangalayatan University, Jabalpur in Webinar: Innovative technology and Enhance Shelf-life of fruits and vegetables: From basic research to application-oriented research, October 17, 2023.

- ❖ Participated and delivered an invited talk on Basics to Create a Successful Bio-Enterprise Workshop, BBB Bionest, RCB, Faridabad, October 2023.
- ❖ Participated in International Plant Nitric Oxide Conference February 2024.

Dr. Gopaljee Jha

- ❖ Participated in BIOANVESHANA 2024, University of Hyderabad, February 14 - 18, 2024.
- ❖ Participated in MIPAM 2024 at Central Tribal University, Vizianagaram, March 18 - 20, 2024.

Dr. Senthil-Kumar Muthappa

- ❖ Participated in the conference interactive meet on 'Molecular Intricacies of Plant Associated Microorganisms 2024' Organized jointly by Central Tribal University of Andhra Pradesh (CTUAP), and Centurion University at Vizianagaram, March 18 – 20, 2024.
- ❖ Participated in the National Conference of Plant Physiology-2023 on 'Physiological and Molecular Approaches for Climate Smart Agriculture' at Dr. B.P. Pal Auditorium, ICAR-Indian Agricultural Research Institute, New Delhi December 09 – 12, 2024.

Dr. Jitender Giri

- ❖ Participated in workshop on "Advances in Plant Metabolic Engineering" at Central University of Punjab, Bhatinda, Punjab, March 16, 2024.

Dr. Saloni Mathur

- ❖ Participated as Judge at the 'Inter-school Biotechnology Meet' and spoke about scope of research at NIPGR to students Sadhu Vaswani International School for Girls Shantiniketan, New Delhi, August 29, 2023.
- ❖ Participated as Organizing committee member at 17th Annual International Biocuration Conference (AIBC) 2024, RCB Faridabad, March 05 – 08, 2024.

Dr. Swarup K. Parida

- ❖ Participated and delivered invited lecture on "Next-Generation Molecular Breeding for a Food Sufficient Future" in International Conference on Biochemical and Biotechnological Approaches for Crop Improvement" (IBBACI 2023), NASC Complex in New Delhi, India, October 30, 2023.
- ❖ Participated and delivered invited lecture on "Pangenome-based GWAS for Accelerated Crop Improvement in Rice" in the International Symposium on Rice Functional Genomics (ISRFG-2023)", UAS, Bangalore, November 03, 2023.

Dr. Pinky Agarwal

- ❖ Participated and delivered a talk at 20th International Symposium on Rice Functional Genomics at UAS, Bengaluru, November 03 – 05, 2023.

Dr. Jyothilakshmi Vadassery

- ❖ Participated and delivered invited lecture and hosted the session on Molecular Plant-Insect Interaction at the 33rd International Conference on Arabidopsis Research (ICAR2023), on the topic “Hunting for insect secreted proteins that modulate plant immunity” at Chiba, Japan, June 05 - 09, 2023.
- ❖ Participated and delivered invited lecture in the International Jasmonate Meeting 2023 at Leibniz Institute of Plant Biochemistry, Halle, Germany on the topic “Identification of a novel gene involved in calcium-mediated jasmonate perception using forward genetic screen in Arabidopsis thaliana” August 31, 2023.
- ❖ Participated and delivered invited lecture at “EMBO Day in Taiwan” at Academia Sinica, Taipei, Taiwan on the topic “Understanding the early immune signaling in plant-insect interactions” October 30, 2023.

Dr. Aashish Ranjan

- ❖ Participated in 20th International symposium on Rice Functional Genomics at University of Agricultural Sciences, Bangalore, November 03 – 05, 2023.
- ❖ Participated in National Conference on Plant Physiology-2023 (NCPP-2023) at ICAR-Indian Agricultural Research Institute (IARI), New Delhi, December 09 – 11, 2023.
- ❖ Participated in National Seminar on Advancements in Plant Sciences at St. Berchmans College, Changanassery, Kerala, January 04 – 05, 2024.
- ❖ Participated in EMBO-International Society of Plant Photobiology Satellite Meeting at Indian Institute of Science Education and Research (IISER), Bhopal, January 15 – 16, 2024.
- ❖ Participated in National Symposium on Plant Biology in the Post-Genomic Era: Strategies for Crops and Mankind at Sister Nivedita University, Kolkata, February 09 – 10, 2024.
- ❖ Participated in International Symposium on Plant Biology and Functional Genomics (ISPBFG 2024), Hyderabad Central University, March 13 – 15, 2024.

Dr. Vineet Gaur

- ❖ Participated in “Prashikshan: Sharpening Lab Skills for Budding Biologists” at Guru Nanak Dev University, Amritsar, March 18 – 24, 2024.

Dr. Senjuti Sinharoy

- ❖ Participated in "Legume-rhizobium Symbiosis" Workshop at PAG Australia, September 20, 2023.
- ❖ Participated in Molecular Intricacies of Plant Associated Microorganisms (MIPAM)-2024, jointly organized by Central Tribal University of Andhra Pradesh, Vizianagaram and Centurion University, Vizianagaram, March 18 - 20, 2024.

Dr. Amar Pal Singh

- ❖ Participated in National Conference on "Recent Advances in Plant Sciences and Biotechnology" at the School of Biological Sciences and Biotechnology (Goa University, Goa, October 26 - 27, 2023
- ❖ Participated in National Conference of Plant Physiology – 2023, December 09 - 11, 2023.

Dr. Amarjeet Singh

- ❖ Participated in Young Scientist Award Presentation at National Conference of Plant Physiology-2023, Jointly organized by the Indian Society for Plant Physiology (ISPP) and IARI, New Delhi, December 09 – 11, 2023.
- ❖ Participated and served as Co-chair in International Conference on Frontiers of Life Sciences: From Molecules, Organisms & Diseases, Vistas in Life Sciences 2024 (VLS2024), at Golden Jubilee (50 Years) celebration of SLS, JNU, New Delhi, January 21 - 24, 2024.
- ❖ Participated in Virtual International Conference on Bioinformatics in Biology “From Pre-requisite to post-requisite” Organized by Gargi College, University of Delhi, March 02 - 03, 2024.

Dr. Ashutosh Pandey

- ❖ Participated and attended a National Conference on “Recent Advances in Plant Sciences and Biotechnology” in School of Biological Sciences and Biotechnology, Goa University on the topic “Phytochemistry and Bioprospecting", October 26 - 27, 2023.
- ❖ Participated and attended International Conference on Biochemical and Biotechnological Approaches for Crop Improvement" (IBBACI 2023) at Bharat Ratna C. Subramaniam Auditorium, NASC Complex in New Delhi, October 30 – November 01, 2023.
- ❖ Participated in 15th annual meeting of Proteomics society, India & International conference on Integrated proteomics: Application in Food, Nutrition and Health organized by NIPGR, New Delhi, November 20 - 22, 2023.
- ❖ Participated in International symposium on Plant Photobiology organized by NISER, Bhubaneswar, January 09 - 12, 2024.

Dr. Hasthi Ram

- ❖ Participated in International Symposium on Rice Functional Genomics (ISRFG 2023), Bengaluru, November 03 - 05, 2023.
- ❖ Participated in and delivered talk on Towards developing genetic resources in Indica Rice through CRISPR library approach, Central University of Haryana, Mahendergarh, Haryana, March 18, 2024.

Dr. Pawan Kumar Jewaria

- ❖ Attended scientific session of Azadi ka Amrut Mahotsav (AKAM) by National Academy of Sciences India (NASI), Prayagraj, at NIPGR, New Delhi, August 11, 2023.

- ❖ Participated in scientific session of the Combating the climate change crisis in the period of Amrit Kaal (Learning Hour Session under Capacity Building by Dr. Ramesh V. Sonti, Director, ICGEB), August 31, 2023.
- ❖ Participated and presented a poster entitled “AGC1, AGC3 and MAP Kinase Regulation of PIN-FORMED Auxin Transporters in Arabidopsis thaliana” in International Conference on Biochemical and Biotechnological Approaches for Crop Improvement (IBBAC 2023) at National Agricultural Science Complex (NASC), New Delhi, India, October 30 - November 01, 2023.
- ❖ Participated in International Conference on Integrated Proteomics: Applications in Food, Nutrition & Health’ NIPGR, New Delhi, November 20 - 22, 2023.
- ❖ Participated in Young Scientists Induction Program under the aegis of the Capacity Building Commission, Government of India; and The office of the Principal Scientific Adviser to the Government of India Indian Institute of Management Visakhapatnam January 29 - February 09 and March 04 – 16, 2024.

Dr. Mukesh Kumar Meena

- ❖ Participated in International Conference on Biochemical and Biotechnological Approaches for Crop Improvement (IBBAC 2023) at National Agricultural Science Complex (NASC), New Delhi October 30 to November 01, 2023.
- ❖ Participated in International Conference on “Integrated Proteomics: Applications in Food, Nutrition and Health” (IPAFNH-PSI 2023) at NIPGR, New Delhi, November 20 – 22, 2023.

Dr. Vikash Kumar Yadav

- ❖ Participated in NIPGR Open Day and presented a poster entitled “Elegance of DNA packaging” December 22, 2023.
- ❖ Participated in 9th India International Science Festival (IISF) 2023, at THStI-RCB Campus, Faridabad, Haryana, January 17 - 20, 2024.

Dr. Divya Mishra

- ❖ Participated as co-organizer of 15th annual meeting of proteomics society of India, International Conference on Integrated Proteomics: Application in Food, Health and Nutrition, New Delhi October 30 - November 01, 2023.
- ❖ Participated and attended 4 modules of Young Scientist Induction Program (YSIP) 2024 at IIM Visakhapatnam, 2024.

Students

Mr. Ashis Majhi (PI: Dr. Hasthi Ram)

- ❖ Participated in 20th International Symposium on Rice Functional Genomics (ISRFG 2023), Bengaluru, November 03 - 05, 2023.
- ❖ Participated in a National Seminar on Plant Science, Biotechnology & Society, Department of Botany, The University of Burdwan, March 23 - 24, 2024

Mr. Sankhadeep Chowdhary (PI: Dr. Hasthi Ram)

- ❖ Participated in 20th International Symposium on Rice Functional Genomics (ISRFG 2023), Bengaluru, November 03 - 05, 2023.

Dr. Prabhakaran Soundararajan, Ms. Bhavya Shukla, Mr. AT Vivek, Ms. Kanchan BM Singh, Dr. Shailesh Kumar, Dr. Abinaya Manivannan (PI: Dr. Prabhakaran Soundararajan)

- ❖ Participated and presented a poster entitled "Genome-wide identification and characterization of WOX gene family among Brassica Triangle of U's genomes" in 18th Annual Science Fest, SLS Auditorium, JNU, New Delhi, March 20 - 21, 2024.

Mr. Awele Letro, Dr. Abinaya Manivannan, Dr. Prabhakaran Soundararajan (PI: Dr. Prabhakaran Soundararajan)

- ❖ Participated and presented a poster entitled "Integrating transcriptomic and metabolomic approaches to study the phenomenon of shoot induction on cytokinin treatment with or without auxin supplementation" in 18th Annual Science Fest, SLS Auditorium, JNU, New Delhi, March 20 - 21, 2024.

Ms. Pooja Singh, Mr. Gourav Singh, Mr. Awele Letro, Dr. Prabhakaran Soundararajan, Dr. Abinaya Manivannan (PI: Dr. Prabhakaran Soundararajan)

- ❖ Participated and presented a poster entitled "Transcriptome-wide identification of expansin genes in different morphotypes of Adhatoda vasica, a pharmaceutically valuable medicinal plant" in 18th Annual Science Fest, SLS Auditorium, JNU, New Delhi, March 20 - 21, 2024.

Mr. Abhinav Kumar, Mr. Gourav Singh, Dr. Sabhyata Bhatia, Dr. Prabhakaran Soundararajan, Dr. Abinaya Manivannan (PI: Dr. Prabhakaran Soundararajan)

- ❖ Participated and presented a poster entitled "Investigation of blue and red-light emitting diodes (LED) mediated enhancement of growth, physiology, and vasicinone content in Adhatoda vasica" in 18th Annual Science Fest, SLS Auditorium, JNU, New Delhi, March 20 - 21, 2024.

Dr. Balasubramiaam (PI: Dr. Jyothilakshmi Vadassery)

- ❖ Participated in the meeting on "Optimizing cryoEM for Research: Strategies for Effective Utilization", organized by SATHI, IIT Delhi, August 02, 2023.

Dr. Paramita Bera (PI: Dr. Jyothilakshmi Vadassery)

- ❖ Participated and delivered an oral presentation on “Silencing of multiple target genes via ingestion of dsRNA affects development and survival of Fall Armyworm” in “The 38th Annual Meeting of the International Society of Chemical Ecology at IISc Bengaluru, India, July 25, 2023.
- ❖ Participated and presented a poster on “A holistic metabolomics approach reveals differences in host plant chemistry of maize genotypes before and after infestation with fall armyworm (FAW, Spodoptera frugiperda J.E. Smith)” in the “International Conference on Food and Nutritional Security, NABI, Mohali, January 06 - 09, 2023.

Mr. Vinodkumar Prajapati (PI: Dr. Jyothilakshmi Vadassery)

- ❖ Participated and delivered a talk on "Spodoptera litura secretes cysteine proteinase that modulate host immunity" in Annual Meeting of International Society of Chemical Ecology at IISc Bangalore, July 27, 2023.

Ms. Apoorva Gupta (PI: Dr. Saloni Mathur)

- ❖ Participated in ‘The 33rd International Conference on Arabidopsis Research’ at Chiba, Japan, June 05 – 09, 2023.

Ms. Richa Virmani (PI: Dr. Saloni Mathur)

- ❖ Participated in ‘International Conference on Biochemical and Biotechnological Approaches for Crop Improvement’ at NASC Complex, New Delhi, October 30 – November 01, 2023.

Mr. Debasish Ghosh (PI: Dr. Saloni Mathur)

- ❖ Participated in ‘International Conference on Biochemical and Biotechnological Approaches for Crop Improvement’ at NASC Complex, New Delhi, October 30 – November 01, 2023.

Ms. Monika Shrivastava (PI: Dr. Saloni Mathur)

- ❖ Participated in 17th Annual International Biocuration Conference, India (AIBC 2024), March 06 - 08, 2024.

Mr. Adesh Kumar (PI: Dr. Saloni Mathur)

- ❖ Participated in 17th Annual International Biocuration Conference, India (AIBC 2024), March 06 - 08, 2024.

Ms. Antima Yadav (PI: Dr. Pinky Agarwal)

- ❖ Participated in 2nd International Conference on Plant Physiology and Biotechnology and presented a poster entitled “A putative miRNA- target module controlling rice grain size”, at Lovely Professional University, Jalandhar, Punjab, April 20 – 21, 2023.
- ❖ Participated in 20th International Symposium on Rice Functional Genomics and presented a poster entitled “A zinc finger transcription factor-miRNA module controlling rice grain size” at UAS, Bengaluru, November 03 – 05, 2023.

Mr. Awasthi PV (PI: Dr. Pinky Agarwal)

- Participated in 20th International Symposium on Rice Functional Genomics and presented a poster entitled “Transcription factor- TF46 modulates rice grain size and quality” at UAS, Bengaluru, November 03 – 05, 2023.

Mr. Baljinder Singh, Ms. Sapna Sharma, Ms. Manisha Yadav, Dr. Sabhyata Bhatia (PI: Dr. Sabhyata Bhatia)

- Participated in Annual National Conference on Advances in Plant Biology (APB 2024) Innovation and Strategies for Sustainable Agricultural Productivity for Viksit Bharat@2047 and presented a poster entitled “Integrated RNA sequencing and small RNA sequencing for identification of miRNAs involved in iron deficiency in lentil”, Hansraj College, New Delhi, February 10, 2024.

Ms. Manisha Yadav, Dr. Sabhyata Bhatia (PI: Dr. Sabhyata Bhatia)

- Participated in Annual National Conference on Advances in Plant Biology (APB 2024) Innovation and Strategies for Sustainable Agricultural Productivity for Viksit Bharat@2047 and presented a poster entitled “Deciphering the intricacies of TF CabHLH mediated root nodule development in Chickpea” Hansraj College, New Delhi, February 10, 2024.

Ms. Deepika and Dr. Amarjeet Singh (Dr. Amarjeet Singh)

- Participated in National Conference of Plant Physiology-2023, Jointly organized by the Indian Society for Plant Physiology (ISPP) and presented a poster entitled “Understanding the molecular mechanism of macronutrient (N, P, K+) deficiency tolerance in crop plants” at IARI, New Delhi, December 09 - 11, 2023.

Study Tours of the Institute

The students of the following Universities/Colleges/School(s) were given tour of NIPGR to familiarize themselves with the frontier research being carried out at NIPGR.

- B.Sc. students of Swami Shraddhanand College, Alipur, Delhi April 18, 2023.
- B.Sc. students of Hansraj College, University of Delhi, May 10, 2023.
- Under graduate and post graduate students of Shree Guru Gobind Singh Tricentenary University (SGT), Gurugram, Haryana, May 18, 2023.
- Students of class 11th and 12th of Ahlcon International School, Mayur Vihar, New Delhi, October 06, 2023.
- Post graduate students of Kerala University of fisheries and Ocean Studies, Kerala, November 08, 2023.
- B. Tech (Biotechnology) students of College of Agriculture, Kerala Agricultural University, Vellayani, Kerala, November 14, 2023.
- Students of PM Shri Kendriya Vidyalaya, Greater Noida, January 31, 2024.
- Students of Department of Biotechnology, Jamia Milia Islamia, New Delhi, March 04, 2024

Symposia/Workshop/ Special Lectures/Events Organized

Swachhta Pakhwada (May 01 - 15, 2023)

Swachhta Pakhwada observed in the Institute during May 1-15, 2023 to give boost to the whole Swachhta Campaign. The Swachhta Pakhwada in the Institute kick started by a Swachhta Pledge on May 01, 2023. During this Pakhwada, various cleanness activities were given renewed attention for taking concrete action by all at NIPGR. The 'Swachhta Pakhwada Awards' have been declared in various categories.

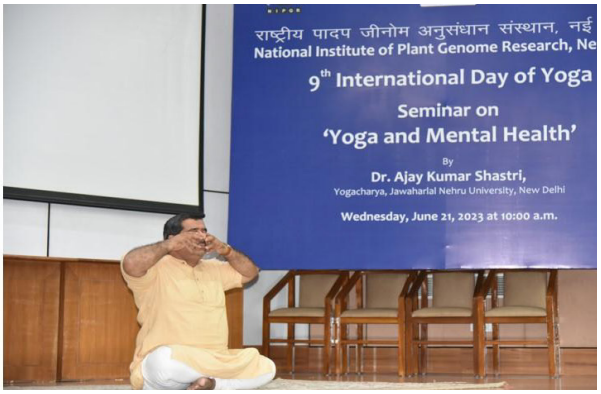
The World Environment Day (June 05, 2023)

The World Environment Day has been observed on June 05, 2023 with due solemnity & in a befitting manner in the Institute. On this occasion a 'Cycle Rally' has been organized in the Campus to spread the message on Mission Lifestyle for Environment (LiFE). The measures taken in the past by the Institute in respect of energy & water conservation, plastic use reduction, sustainable consumption and waste reduction have been rejuvenated during the Environment Day.

International Day of Yoga (June 21, 2023)

The 9th International Day of Yoga celebrated on June 21, 2023. On this occasion, a Seminar on 'Yoga and Mental Health' by Dr. Ajay Kumar Shastri, Yogacharya, Jawaharlal Nehru University was

organized which was comprised of a brief session on Suksham Vyayam, Pranayam, Meditation and Yogabhyaas. All staff members with their families, students & researchers participated with full enthusiasm. The objective of this exercise is to make all participants aware of the immense rewards that the pursuit of Yoga can bring to the individual and inspire them to continue the practice of Yoga beyond Yoga Day.



Yogabhyaas

Hindi Workshop on "कार्यालय में प्रयुक्त पारिभाषिक शब्दावली" (June 22, 2023)

In pursuance of Official Language Act/Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on "कार्यालय में प्रयुक्त पारिभाषिक शब्दावली" was organized on June 22, 2023 at the Institute. The staff members of the Institute enthusiastically participated in the said workshop.

Independence Day Celebration (August 15, 2023)

The Independence Day has been celebrated in the Institute on August 15, 2023. On this occasion National Flag has been hoisted by the Director, NIPGR and 'Panch Pran Pledge' has been taken with Mitti in Hand. NIPGR has participated in the special campaign 'Meri Maati Mera Desh' and 'Har Ghar Tiranga' during August 13-15, 2023 launched by the Government of India under the aegis of 'Azadi Ka Amrit Mahotsav (AKAM)' by encouraging all the staff members, students and researchers to participate in the Campaign wholeheartedly.

Independence Day Celebrations

Hindi Pakhwara (September, 2023)

Hindi Pakhwara was observed during September, 2023 in the Institute. All the members of the staff, students and researchers were requested to do maximum work in Hindi during this period. The staff members were encouraged to use Hindi in the deliberations of the meetings, seminars, etc., organized during this period, to work in Hindi on computers and to opt for forms in Hindi which are used for various purposes in the Institute, besides all other official works. On 'Hindi Diwas', the message of the Cabinet Secretary, Government of India has been read out on September 14, 2023, in the presence of members of NIPGR Community.

Additionally, various activities/competitions like Essay Competition, and Dictation etc. in Hindi have been organised on September, 2023. Members of NIPGR community participated enthusiastically in the events. The best two entries in these events were selected to confer prizes and certificates on the occasion of Foundation Day of the Institute.

Hindi Workshop on "संघ की राजभाषा संबंधी प्रावधान एवं विभिन्न हिंदी टूल्स" **(September 26, 2023)**

In pursuance of Official Language Act/Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on "संघ की राजभाषा संबंधी प्रावधान एवं विभिन्न हिंदी टूल्स" was organized on September 26, 2023 at the Institute. The staff members of the Institute enthusiastically participated in the said workshop.

Rashtriya Ekta Diwas (National Unity Day)-October 31, 2023

The birth anniversary of Sardar Vallabhai Patel has been commemorated as 'Rashtriya Ekta Diwas (National Unity Day)' on 31 October. In order to celebrate the occasion in a befitting banner and re-inforce the message of national unity and awareness about Sardar Patel's stellar contributions to the building modern India, all members of the Institute took 'Rashtriya Ekta Diwas Pledge' and 'Run for Unity' programme has been organised at NIPGR on October 31, 2023

Vigilance Awareness Week (October 30-November 05, 2023)

In deference to the Instructions received from Central Vigilance Commission (CVC) and the Department of Biotechnology, the 'Vigilance Awareness Week' overserved at NIPGR during October 30-November 05, 2023 with the theme 'Say no to corruption; commit to the Nation'. This has commenced with the Integrity Pledge taken on October 30, 2023 wherein staff members/ students/researcher participated. To sensitize against corruption and other unethical activities, a seminar has been organized on October 31, 2023. Besides, an Essay Competition on the theme of VAW 2023 has been scheduled during the said period in the Institute.

Integrity Pledge

Annual Student's Research Symposium – Sci Efflux-2023 (November 07 - 08, 2023)

The Student Research Symposia (SciEfflux – 2023) was organized during November 07 & 08, 2023. On this occasion, 2nd and 4th year students of the Institute made presentations related to theme and progress of their research work. The award for best presentation each by the 2nd and 4th year students, namely “Best Scientific Presentation Award” has been conferred which contains a medal and a certificate. The faculty members and students of the Institute participated in the deliberations of the Symposia.

Inauguration of Annual Student's Research Symposium – SciEfflux-2023

Participants of Cultural Programme

15th Annual Meeting of the Proteomics Society, India (PSI) and the International Conference on Integrated Proteomics: Applications in Food, Nutrition, and Health (IPAFNH-2023) unfolded at the National Institute of Plant Genome Research in New Delhi, India, (November 20 – 22, 2023)

The 15th Annual Meeting of the Proteomics Society, India (PSI) and the International Conference on Integrated Proteomics: Applications in Food, Nutrition, and Health (IPAFNH-2023) unfolded at the National Institute of Plant Genome Research in New Delhi, India, spanning from November 20 to 22, 2023. This meticulously curated program aimed at the PSI meeting and conference was designed with precision, ensuring an immersive academic experience for all participants. The event encompassed an education day program, pre-and post-conference workshops, plenary lectures, invited lectures, and poster sessions. The conference was held under the Chair of Dr. Subhra Chakraborty, Director, NIPGR and President, PSI with a team of experienced and dedicated scientists from India forming the Organizing Committee.

Looking back the PSI annual meeting was first held in CCMB, Hyderabad, India combined with AOHUPO meeting in the year 2010, which led to the birth of International Proteomics Conferences in India for promoting international collaboration. Thereafter, every year PSI meetings are being held in different regions of India, with a strong commitment to research, application and international collaboration to showcase exciting discoveries and new insights in the field of proteomics. This has also served the purpose of enlarging the resource base and bringing greater awareness to the scientific community.

Around 250 participants representing 11 countries across the globe from various scientific disciplines, including Plant, Agriculture, Animal and Human field actively participated in the conference. The conference was attended by leading scientists in the field. The conference could not have a better start than the Inaugural Plenary talks by Dr. Rajesh S. Gokhale, Secretary, DBT, and Prof. Yu-Ju Chen, National Taiwan University, Taiwan in the area of multiomics and health research. Each day the conference started with a plenary lecture and ended with another evening plenary lecture. There were 10 sessions that included 6 plenary talks, more than 45 invited talks by leading national and international scientists in their respective field of research and Industry talks on new technology developments in mass spectrometry, metabolomics, omics data analyses and protein interaction studies. All these sessions were chaired by national and international experts and delegates actively participated in the deliberations at the end of each presentation.

The invited lectures delivered during the conference covered various areas, including Multiomics and Systems Biology, Post-translational Modification, Interaction Proteomics and Cellular Network, Food and Nutrition and Plant Proteomics, Animal Proteomics, Microbial Proteomics and Metaproteomics, Cutting-edge Knowledge in Proteomics, Data Science in Proteomics, Lipidomics and Metabolomics and Biomedical Proteomics. Besides the plenary lectures and invited talks, there were informal poster sessions and exhibitions by sponsors, which played a central role in vibrant discussions and exchange of scientific ideas amongst the students, researchers and fellow colleagues. PSI council meeting was also held during the conference. There were ten five minutes lightening talks by young students and researchers selected from the submitted abstracts. The international organizing committee came up with the recommendation

to initiate collaborative proteomics research and possible national and international projects in the area of food and health. Besides, a cultural evening, presenting Indian classical dance and music, was also organized to provide a glimpse of our rich cultural heritage to the participants.

The three-day conference culminated in a valedictory function. Dr. Subhra Chakraborty, Director of NIPGR and President of PSI, unveiled the best poster and travel awards winners. The symposium concluded with a vote of thanks.

Journal of Proteins and Proteomics, a journal of the PSI came up with a Special Issue on “Advances in Structural, Functional and Interaction Proteomics in Food and Health” with the proceedings and the abstracts http://www.jpp.org.in/index.php/jpp/article/view/213/15. The on-line access of PSI-AOAPO 2016 web-site can be found athttp://psiaoapo2016.org/.

Pre-Conference Workshop, Educational Drive and Post-Conference Workshop

The pre-conference workshop, titled "Plant/Agricultural Proteomics, Metabolomics, and Data Analysis," marked the commencement of the events on November 18, 2023, at NIPGR. Designed to provide practical experience in preparing proteomics and metabolomics samples and in mass spectrometry analysis and data interpretation, the workshop witnessed the active participation of twenty individuals, primarily Ph.D. students representing diverse institutions nationwide.

In addition, a one-day Education day program jointly organized by NIPGR & PSI at NIPGR provided the basics in proteomics science through lectures from eminent scientists to college/ university teachers, students and researchers on November 19, 2023.

Subsequently, a post-conference workshop on Biomedical Proteomics and data analysis took place at the Regional Centre for Biotechnology (RCB) and Translational Health Science Research Institute (THStI), NCR Biotech Science Cluster, Faridabad, on November 23, 2023. The workshop aimed to provide a concise overview of proteomics sample preparation, data collection in mass spectrometry, and data analysis.

Overall, it was impressing to observe the enthusiasm of young proteomics researchers and the positive attitude of the world proteomics community. This will accelerate the way for developing joint educational courses and student exchange programs from the participating countries in the years to come through Government funded training programme and advanced school.

Constitution Day (November 26, 2023)

The Constitution Day was observed on November 24, 2023 (November 25-26 being public holidays). The Preamble to Constitution read out in the Board Room of the Institute with the 'Samvidhan Diwas' banner in the backdrop, on the Constitution Day. The 'Preamble' read out both in Hindi & English. The staff members/researcher/scholars of the Institute participated in the event.

Foundation Day (November 27, 2023)

The Institute celebrated its 26th Foundation Day by organizing "J. C. Bose Memorial Lecture" on November 27, 2023. On this occasion Institute has organized a public lecture on "Concise View of Evolution", delivered via virtual mode by Dr. Shekhar C. Mande, Distinguished Professor, Savitribai Phule Pune University, Former Director General, Council of Scientific & Industrial Research & Secretary, DSIR, Government of India. Besides, researchers/students of the Institute were facilitated with medals/mementos/certificates for the best scores in Ph.D. course work, for best presentations in Students Research Symposium 2023, Best Paper Award 2023, winners of the events conducted during Hindi Pakhwara and sports activities. The invited guests as well as staff and students of the Institute attended the function through Hybrid mode.

Foundation Day Celebrations

Hindi Workshop on ‘हिंदी टंकण, अनुवाद एवं प्रशासनिक शब्दावली’’ (December 15, 2023)

In pursuance of Official Language Act/Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on ‘‘संघ की राजभाषा संबंधी प्रावधान एवं विभिन्न हिंदी टूल्स’’ was organized on December 15, 2023 at the Institute. The staff members of the Institute enthusiastically participated in the said workshop.

Open Day (December 22, 2023)

With a view to popularize science and showcase the various facets of research and development to young innovators, students, teachers and individuals interested in the field of plant sciences, the institute has organed an Open Day/Public Outreach Day on December 22, 2023. In this event, more than 1500 students from different schools and colleges encompassing both government & private participated along with their teachers. In this event, posters and exhibits on various aspects of plant science have been presented. To give students the real laboratory experience, a demo lab has been set up to show them the basic molecular biology experiments. The aim of this event was to stimulate the brains of young knowledge seekers to develop an interest in science in general and plant science in particular as their mainstream career. Two scientific lectures by renowned scientists have been organized by the Institute on same day. The scientists, teachers, students and researchers attended the lecture.

National Science Day (February 28, 2024)

India celebrates National Science Day on 28th February of each year to mark the discovery of the Raman effect by Indian physicist Sir C. V. Raman on 28 February 1928. For his discovery, Sir C.V. Raman was awarded the Nobel Prize in Physics in 1930. The theme for this year’s National Science Day celebration was “Indigenous Technologies for Viksit Bharat”. This theme supports the mission of Viksit Bharat by promoting scientific research activities in the country and developing indigenous technologies to become “Atmanirbhar”. This year NIPGR organized

the National Science Day lecture by Prof. Umesh Varshney, IISc Bangaluru on 28 February 2024. Prof. Varshney is a Shanti Swarup Bhatnagar awardee and a renowned scientist in the country. He delivered a lecture on “Khorana & Genetic code” highlighting the journey of Indian-American Nobel laureate Prof. Har Gobind Khorana and discovery of the genetic code. All Ph.D. students, researchers and the institute’s scientific and technical staff attended this lecture. The lecture was inspiring for the young students to indulge in the fascinating world of science and motivated them to come up with solutions for societal benefits.

The International Women’s Day (IWD) (March 08, 2024)

The International Women’s Day (IWD) on the theme “Invest in Women: Accelerate Progress” has been celebrated on March 8, 2024. The aim was to highlight the importance of gender equality, empowerment of girls & women and their rights to healthier lives. The event was organized through hybrid mode. The scientists, students and researchers attended the Lectures.

Online Lecture

BIC-NNP Workshop on “Big Data Analysis and Machine Learning” (March 13 - 15, 2024)

The DBT Bioinformatics Centre at NIPGR periodically organizes trainings/workshops/symposiums/ seminars in Bioinformatics. These workshops offer short courses useful for understanding the developments in different aspects of Bioinformatics. This year, we have organised a three days’ workshop on “Big Data Analysis and Machine Learning” from March 13-15, 2024, at NIPGR, New Delhi under the DBT funded project “Plant Genomics, Gene Regulatory Network and Novel RNA Molecules- BIC at National Institute of Plant Genome Research, New Delhi”. In this workshop, the first day was dedicated to only lectures for 100 participants. Out of those, we have provided the hands-on training to 30 students/researchers in the next two days. Workshop started with the Director’s remark, followed by the thoughts of the Bioinformatics scientists of institute, Dr. Gitanjali

Yadav and Dr. Shailesh Kumar. On first day, eminent scientist in the field of bioinformatics delivered the talks on Computational genomics, Artificial Intelligence (AI), Machine Learning (ML), and Chemoinformatic to around 100 participants in hybrid-mode. On the second and third day of the workshop, eight other instructors delivered short talks, followed by detailed hands-on sessions to selected 30 participants. Here, the topics covered were Machine Learning in Biological systems, Genome assembly and annotations, Molecular Docking and Simulation, DNA methylation data analysis, knowledge graph and drug target prioritization, and transcriptome data analysis. We concluded the workshop by certificate distribution and feedback by the participants.

BIC-NNP workshop and attendees

Hindi Workshop on ''डिजिटल समय में राजभाषा हिंदी'' (March 19, 2024)

In pursuance of Official Language Act/Rules of the Government of India, the use of Hindi Language in the official functioning of the Institute is being progressively strengthened. Towards this, a workshop on ''डिजिटल समय में राजभाषा हिंदी'' was organized on March 19, 2023 at the Institute. The staff members of the Institute enthusiastically participated in the said workshop.

Other Activities at NIPGR

Special Campaign for Swachhata and disposal of pending matters

In pursuance of the instructions issued by the Government of India to undertake Special Campaign for Swachhata in Government offices and disposal of pending matters during the month of October 2023, the SCDPM 2.0, special campaign on pending matters/record management has been scrupulously implemented in the Institute, under the guidance of DBT. The instructions issued during Swachhta Hi Seva (SHS) campaign have been followed up in the Institute with the focus on action towards effective ban of Single Use Plastic (SUP).

National Genomics and Genotyping Facility (NGGF)

Background

The National Genomics and Genotyping Facility has been established at the National Institute of Plant Genome Research, New Delhi India by the Department of Biotechnology to serve as a “Singe-window service system” providing advanced genomics-based solutions to the custom stakeholders of biotechnology research through functioning in Public Private Partnership (PPP) mode including HRD training and consultancy on appropriate technologies to be chosen, study design, data analysis that enables and improves the quality of the research and product development. The facility is completely operational from April 2023 and is providing services to government and private stakeholders of biotechnology for accelerating national translational genomics efforts.

The facility consists of the following diverse high-throughput genotyping and sequencing platforms: Platform 1: Fluorescent dye-labelled SNP genotyping platform (LGC Array Tape/KASP) with Real time PCR; Platform 2: Array-based SNP genotyping platform (Affymetrix Gene Titan Multichannel instrument and AGENA mass array); Platform 3: NGS-based sequencing and genotyping platform (Nova-Seq 6000 and Next-Seq 550) and Platform 4: Computational Facility for High performance computing (HPC) and High-capacity data storage along with Computational Genomics Software's to expedite the downstream genotyping and sequencing data analysis. Currently the NGGF is operating in a public-private partnership (PPP) mode wherein the private partner M/s. Imperial Life Sciences (ILS), Gurgaon, Haryana is running the facility.

Progress

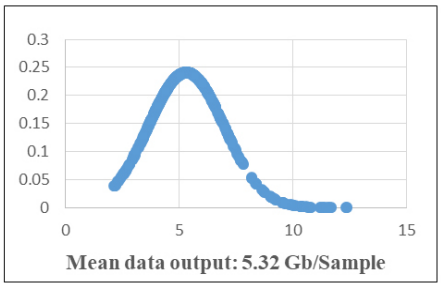
This year, ~65Tb genome sequencing data from different plant and animal species was generated utilizing the NovaSeq 6000 platform. This included, services for genome resequencing of 2400 chickpea accessions under Mission Mode Project entitled "Characterization of Chickpea Germplasm Resource to Accelerate Genomics-assisted Crop Improvement have been completed. More recently, ~15Tb genome resequencing data of cultivated and wild wheat varieties was generated. Simultaneously, NGGF-PMU is continuously optimizing and developing diverse cost-efficient and user-friendly protocols and strategies for high- throughput SNP marker genotyping on the platforms installed at the facility and also diverse computational genomic tools/pipelines for efficient downstream high-throughput big data analysis in order to expedite the genomics and genotyping services with optimal use of resources.

Platform	Sample Type	Organization	No of samples sequenced	Data generated
NovaSeq6000	Chickpea	NIPGR	2400	15Tb
-do-	Wheat	DU-NIPGR	121	16Tb
-do-	Human	IGIB	200	32Tb
-do-	Exome	AIIMS	80	500Gb
-do-	Transcriptome	NIPGR	9	200Gb
-do-	WGS	NIPGR	41	800Gb
Total			**2851**	**64.5 Tb**

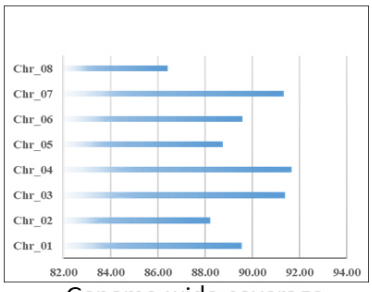
Resequencing of Chickpea accessions

Nova_seq_S4 flow cell (Run no.)	Total_output (Tb)	Q30_output (Tb)
1	3.2	2.72
2	3.1	2.76
3	4.1	3.5
4	4.0	3.6
Average	3.6	3.144

Output/S4 flow cee



Output/sample



Genome-wide coverage

Advanced Inter-Institutional Proteomics Facility

The Advanced Inter-Institutional Proteomics Facility of NIPGR is equipped with advanced state-of-the-art mass spectrometers. This advanced proteomics facilitates characterization and validation of interactome proteome and discovery proteomics as well as verification of biomarkers. Projects related to identification and characterization of different protein sets, proteoforms and interacting partners, large scale mapping of crop proteomes, finding the missing proteins from genome data, understanding the mechanistic details of plant processes, small molecules of agricultural and biomedical importance, etc are being implemented using this facility. This is helpful in understanding the function of a gene/protein which could be translated in application related to improvement of agricultural, medicinal products along with health care products. Further, the facility would continue to generate well trained young researchers with capability to further studies in related areas from different DBT institutes, nearby Universities/Institutes and across India. Moreover, advanced training in the field will be an integrated mandate of the facility for India and neighboring countries. The scientific and technical know-how generated in the facility will be shared with the users to conduct high quality research. The service of the facility is available to internal and external users.

Metabolomics Facility: Plant Analytical Platform for Phytohormones and low abundant Molecules (PAPM) – Metabolomics Facility, NIPGR

The Metabolomics Facility at National Institute of Plant Genome Research (NIPGR) was set up with DBT-SAHAJ funding as a platform for plant metabolomics with advanced and high throughput equipments and using Mass Spectrometry as the key technology for the identification and quantitative characterization of both targeted and untargeted metabolites. Inauguration of the fully functional metabolomics facility performed by Dr. Renu Swarup, Secretary, Department of Biotechnology on 4th December, 2019.

The Metabolomics Facility, NIPGR is one-of-the kind in the country and equipped with state-of-the-art analytical instrumentation designed for both targeted and untargeted quantification and profiling of plant phytohormones and low abundant metabolites. Low abundant plant metabolites are commonly functionally classified, as defense or growth-related phytohormones, primary and secondary metabolites. The equipments in the facility include Gas Chromatography-Mass spectrometry - GC-MS/MS (TQ8050 NX), Liquid Chromatography-Mass spectrometry- LC-MS/MS (QTRAP 6500^{+}), High Performance Thin Layer Chromatography (HPTLC-CAMAG), Inductively coupled plasma mass spectrometry - ICP-MS (Agilent 7800) apart from various specialized equipments for sample preparation. Methods are established for high throughput analysis of phytohormones, amino acids, flavonoids, other targeted metabolites as envisaged in the project and metabolomics data has been generated in varying stress conditions in diverse plants. Phytohormone profiling and metabolomics-based phenotyping has been done in diverse crop crops under abiotic and biotic stress as evident from publications and participation in various mission mode projects including in rice, maize and chickpea. The Metabolomics facility is the only dedicated facility in the whole country for specific plant metabolites including phytohormones and hence users from all over the country are utilizing it. The facility has run close to 5000 samples in the current year for internal and external users.

Gene Function Analysis Platform for Crops (GFAPC)

The Advanced Research Platform for Crop Sciences, Gene Function Analysis Platform for Crops (GFAPC) was established at NIPGR, New Delhi in 2018. Since its establishment, the facility has developed high throughput plant transformation protocols in rice, tomato, brassica, and chickpea and has catered needs of several labs of the host institution. Plant transformation, development of transgenic and genome-edited plants are indispensable components of plant research and the trained and expert personnel at this facility contribute by developing genetically engineered crop plants in the quickest possible time thus providing much-needed expertise and helping hands to several labs of the institution for carrying forwards their researches efficiently and quickly.

The facility has the necessary expertise in developing transgenic plants in several varieties of rice such as IR64, MTU1010, Swarna (the *Indica* rice cultivars), Nipponbare and Taipei309 (the *Japonica* rice cultivars) as well as in tomato, chickpea, and *Brassica*.

During last year (2023-24), the facility has processed one indent to develop several transgenic rice lines from a construct. The facility has also repeated making the transgenic rice lines from two more constructs as the earlier developed lines had failed to survive. Many labs from NIPGR are utilizing the greenhouse facility of GFAPC on regular basis to grow their plants.

The plant research programs can progress better once different technological platforms having requisite expertise work together in coordination under the same umbrella. The GFAPC is one such component of DBT's umbrella project entitled 'Research Resources, Service Facilities and Platforms (RRSFP)'. The GFAPC facility of NIPGR, New Delhi is poised to become a nucleation center in Delhi-NCR to lend its expertise to other public and private research organizations situated in and around Delhi-NCR. The establishment of such specialized facility is not only expected to accelerate plant-based research and crop improvement programs of the country but also function as an important avenue for the employment of young researchers and income generation in the Biotechnology sector. The facility is expected serve several labs of the host institution as well as other institutions on a regular basis.

Plant Growth Facility (PGF)

The NIPGR-Plant Growth Facility, a state-of-the-art facility built for research product development, was established in the year 2010. The facility contains 23 Plant Growth Chambers providing approx. 72 m^2 of environmentally controlled plant growth area dedicated to studying the effects of environmental variables on crop growth, development, and productivity. The facility is being used for accurate and reproducible results in crop plants such as rice, chickpea, tomato, mustard, millets, banana, groundnut plus the model plants *Arabidopsis thaliana* and *Nicotiana benthamiana*. The facility has benefited plant scientists and researchers by allowing propagation and breeding of plants around the year and providing a better assessment of plant growth and yield under abiotic and biotic stress conditions. The facility has dedicated soil and media preparation rooms, RO supply, autoclave, incinerator and power backup.

Computational and Bioinformatics Facility (CBBF)

This year witnessed the emergence of the NIPGR-CBBF as a National Facility, namely the "National Plant Computational Biology & Bioinformatics Facility (NPCBBF)" on the occasion of Silver Jubilee Celebrations of NIPGR, and this facility was inaugurated by Dr. Jitendra Singh, Hon'ble Minister of State for Science & Technology, Minister of State in the Prime Minister's

Office, Ministry of Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space, Govt. of India on 29th November 2024. The NPCBBF aims to place NIPGR in its silver jubilee year, as a nodal point for all plant computational biology being conducted in the nation, building on India's huge interdisciplinary strengths in food and nutritional security as well as in response to the exponentially increasing research data being generated in the country. This new CBBF facility also houses India's first in-house academic IT cloud owned by NIPGR, that has enabled users to monitor and sync their work or data seamlessly over multiple devices like phones, tablets, laptops or workstation terminals. From a security perspective, the NP-CBBF is more robust to individual node or disk failures. All of the computational resources developed previously at NIPGR are being hosted within the CBBF, and reflect our highly advanced research capacity in Genomics, food security, agri-biotechnology conservation, and climate resilience, but more importantly, these also include innovative e-learning materials created from the various capacity building and upskilling efforts undertaken by the NIPGR CBBF over the past two decades.

The NP-CBBF has three data centers, DC-1 houses the cyber security and web servers, DC-2 houses our AI-Box cluster, the complete storage solution of almost 4 PetaBytes, as well as the NIPGR cloud. DC-3 houses the HPC cluster offering a joint RAM of 6TB over 700 parallel core processors, many times faster than any of our existing servers. The Staff Room within the new CBBF supports smart Management of the entire facility, dedicated schedulers on master nodes, and a visual view of the entire WiFi map of the institute, making it easy to track available resources, allocating job requests from multiple users via the 10G uplink Infiniband (IB) enabled high speed network. The combined power of the NPCBBF allow AI-Driven interventions in Data Mining, Computer Vision, and Multi-omics for sustainable agriculture, as well as faster completion of high compute intensive tasks such as whole genome or transcriptome assemblies, deep learning 3-D structural folds and molecular dynamics simulations for prediction of appropriate ligand binding conformations.

Hon'ble Minister, Dr. Jitendra Singh, with Director NIPGR and Scientists-in-charge, CBBF on 29th November, 2023 when the "National Plant Computational Biology & Bioinformatics Facility" was inaugurated during NIPGR Silver Jubilee celebrations to mark 25 years of the Institute as a leading National and International Genomics Centre.

DST-INSPIRE Faculty Award

Understanding role of MAP Kinase signaling cascade in regulation of peptides encoded by pri-miRNAs in rice

PI: Dr. Deepika Sharma

MicroRNAs (miRNAs) are non-coding RNAs that post-transcriptionally regulate the expression and functioning of their target mRNAs in plants. Reports have suggested that the endogenous primary transcripts of miRNA (pri-miRNA), the function of which is not fully understood have short open reading frames (smORFs) that encodes regulatory peptides of 2-100aa, termed as miRNA-encoded peptides (miPEPs), indicating that pri-miRNAs possess both protein-coding and non-coding functions. This study aims to study miRNAs and their respective miPEPs that might play role in different developmental aspects and stress responses in rice. Through this study, we are trying to identify their downstream targets and upstream regulators such as MAP kinases to fully understand their molecular mechanism during rice growth and development.

The significant results of the studies are as follows:

- We have identified potential miPEPs in rice, miPEP156f, miPEP159a, miPEP164a, miPEP166a, miPEP396c and miPEP398b for their respective miRNAs that are biologically active and positively regulate the expression of their associated miRNAs upon overexpression in rice seedlings.
- We identified that most of these miPEPs localised in the plasma membrane. Y1H, *in planta* luciferase assay and dual luciferase assay confirms that miPEP398b binds to the promoter region of miR398b and regulates it in rice.
- Transient transformation of 35S:miPEP398b in rice confirm that miPEP398b peptide binds to and induces the expression of miR398b in rice.
- Expression studies in different stress conditions (drought, salt, ABA, pathogen) revealed that miPEP398b and MPK3/4/6 might participates in the same regulatory cascade that might led to tolerance during changing environmental conditions.
- Protein-protein interaction studies using GSt Pull-down, Y2H and BiFC assay confirms that miPEP398b and MPK3 and MPK6 interacts *in vivo* and *in vitro*. Further, we confirm that MPK3 and MPK6 phosphorylates miPEP398b peptide *in vitro* kinase assay. This indicates post-translation modification and regulation of miPEPs in rice by MAP Kinase cascade.
- Studies on miPEP398b overexpression and miR398b promoter transgenic lines revealed that they are involved in regulation rice responses against abiotic stress tolerance.
- Study on synthetic peptides will further confirm and strengthens this study in the future.

Whole genome *de novo* assembly and identification of functional genes associated with biosynthesis of quinazoline alkaloids in *Adhatoda vasica*, a potential medicinal plant

PI: Dr. Abinaya M.

Adhatoda vasica is a potential medicinal plant widely utilized as a vital ingredient in various Ayurvedic formulations to treat respiratory disorders. The plant possesses specific quinazoline alkaloids (QA) such as vasicine, vasicinone, adhatodine, and anisotine responsible for the antispasmodic activity. These metabolites are so far identified only in this plant. Although, the plant consists of important medicinal value and widely consumed in India, till date no information regarding the molecular markers and vital genes involved in the QA biosynthesis has been elucidated. Therefore, for the first time the present proposal aims to generate a high-quality whole genome assembly to decipher the QA metabolic pathway. The whole genome sequencing of *A. vasica* has been initiated with hybrid (Illumina, Oxford Nanopore/PacBio SMRT) sequencing platforms. The results suggested that the genome size of A. vasica was 1.98 GB sequencing reads with Illumina platform generated 121.87 GB, Oxford Nanopore with 31.55 GB, and PacBio SMRT produced 31.25 GB of dataset. The hybrid assembly resulted in 27,400 contigs and 27,396 scaffolds with contig and scaffold N50 of 1.1 Kb. Further, pseudochromosome level assembly will be performed in future. Subsequently to understand the functional genes associated with QA metabolism the denovo transcriptome assembly of high and low QA morphotypes were generated. The *de novo* transcriptome assembly of both morphotype using Illumina platform produced a paired end read data of ~6.8 Gb with 143,308 transcripts. The CDSs were majorly classified into organic substance metabolic process (19-20 %) and a total of 58,906 genes were expressed in both morphotypes. The transcriptomic analysis revealed the differential expression of vital genes involved in the biosynthesis of alkaloids particularly from the tryptophan pathway such as anthranilate synthase, anthranilate phosphoribosyltransferease, tryptophan synthase, norcoclaurine-O-methyltransferase and O-methyltransferase in both S and B morphotypes. In addition, in vitro regeneration of A. vasica and application of different types of elicitation strategies (biological: red, white, blue, red+white specral quality-based elicitation; Chemical: Methyl jasmonate, Sodium nitroprusside) for higher production of QA has been explored. Our results displayed plants and callus culture grown under different spectral qualities produced higher amounts of valuable metabolites.

Webinar Series

S. No.	Speaker	Title	Date
1	Dr. R. Govindarajan, R&D Head, Zydus Wellness Ltd., Ahmedabad	Quality Control and Standardization of Plant Based Drug	May 01, 2023
2	Dr. Kaushal Kumar Bhati, BASF Belgium Coordination Center CommV, Innovation Center Gent, Belgium	Opportunities in synthetic plant biology through post-translational protein fate regulation	August 28, 2023
3	Dr. Dileep Vasudevan, DBT-Rajiv Gandhi Centre for Biotechnology (DBT-RGCB), Thiruvananthapuram, India	Safari pentapus: A structure-function journey with plant nucleoplasmins	November 29, 2023
4	Peter Murray-Rust, Dept of Chemistry, University of Cambridge	Creating Youth AI Champions in India	February 22, 2024
5	Raquel Perez de Eulate, Creative Director – Interpunct, Spain	Vivlio Style & CSS Media Design	February 22, 2024
6	Simon Worthington, TiB Vivo, Berlin, Germany	Beyond PDF Printing: Open Access for Liberating Literature	February 22, 2024
7	Dr. Sergio Svistoonoff, Plant Health Institute of Montpellier, France	From model legume to crop, how to improve biological nitrogen fixation?	March 04, 2024
8	Dr. Fabienne Cartieaux Plant Health Institute of Montpellier, France	From model legume to crop, how to improve biological nitrogen fixation?	March 04, 2024
9	Dr. Guy Cochrane, European Nucleotide Archive (ENA), EMBL's European Bioinformatics Institute (EMBL-EBI), United Kingdom	The Global Biodata infrastructure and the drive for sustainability	March 11, 2024

Seminar Series (2023-24)

S. No.	Speaker	Title	Date
1.	Dr. Kaushal Kumar Bhati BASF Belgium Coordination Center, Innovation Center Gent, Belgium	Opportunities in synthetic plant biology through post-translational protein fate regulation	August 28, 2023
2.	Dr. Abhishek Narain Singh The Global American University Schiller, Heidelberg campus, Germany	Supercomputing, Machine Learning, Graph Algorithms, Statistics & Big Data in Bioinformatics / Biomedical Informatics	September 14, 2023
3.	Dr. Sunil K. Kenchanmane Raju Postdoc, Center for Genomics and Systems Biology, New York University, Manhattan, NY, USA	Epigenomic and cell-type specific regulation of gene expression and function	November 16, 2023
4.	Prof. Steven E. Lindow Department of Plant and Microbial Biology, University of California, USA	Detailed studies of plant pathogens can lead to novel means of disease control: the case of *Xylella fastidiosa* in grape and citrus	November 18, 2023
5.	Prof. Ute Hoecker Institute for Plant Sciences, University of Cologne, Germany	Cryptochrome-mediated inhibition of the COP1/SPA ubiquitin ligase during light-regulated Arabidopsis development	January 18, 2024
6.	Dr. Martin Balcerowicz School of Life Sciences, University of Dundee, Scotland, UK	Understanding temperature-controlled gene expression in plants	January 18, 2024
7.	Prof. Pulok K. Mukherjee Institute of Bioresources and Sustainable Development (IBSD), Manipur, India	Metabolomics in medicinal plants and Ethnopharmacology	February 22, 2024
8.	Prof. Marco Leonti Department of Biomedical Sciences, University of Cagliari, Cagliari, Italy	How taste shaped the use of botanical drugs	February 22, 2024
9.	Prof. Umesh Varshney Indian Institute of Science (IISc), Bengaluru, India	Khorana & the Genetic code	February 28, 2024

Academic Courses and Training Programmes

Ph. D. Programme

As in the previous years, the response for admission to Institute's Ph. D. programme was very encouraging this year also. The candidates are selected after a national level test followed by interview conducted by NIPGR. Only CSIR-JRF/UGC-JRF/DBT-JRF/ICMR-JRF Fellowship awardees/DSt INSPIRE Fellowship for pursuing full-time Ph. D. program are eligible to apply. The selected scholars are first required to do course work, which is followed by research work on different areas on Plant Genomics in various laboratories. A total number of 410 students have registered for the Programme leading to Ph. D. degree to JNU since the Academic year 2001-2002 and out of these, 206 students have been awarded with Ph. D. degree, and the rest at various stages of their Ph. D. work.

Student enrolled for Ph. D. programme 2023-24

S. No.	Name of the Student	Name of the Supervisor/Co-supervisor
1.	Ms. Ahana Sengupta	Dr. Senjuti Sinharoy
2.	Mr. Arnab Sarkar	Dr. Amar Pal Singh
3.	Mr. Asish Kumar Pattnayak	Dr. Vineet Gaur
4.	Ms. Astha Singh	Dr. Jitender Giri
5.	Mr. Balaji B.	Dr. Pawan Kumar Jewaria
6.	Mr. Bukya Rajesh	Dr. Gopaljee Jha
7.	Ms. Deeksha Verma	Dr. Shailesh Kumar
8.	Ms. Diksha Saiyam	Dr. Mukesh Kumar Meena
9.	Ms. Diptimayee Jena	Dr. Naveen Chandra Bisht
10.	Ms. Jahanvi Ganotra	Dr. Jitender Giri
11.	Mr. Kumar Anchal	Dr. Ashutosh Pandey
12.	Ms. Laxmipriaya Sahoo	Dr. Saloni Mathur
13.	Mr. Manish Sharma	Dr. Ashutosh Pandey/Dr. Subhra Chakraborty
14.	Ms. Mayulika Mondal	Dr. Swarup K. Parida
15.	Ms. Megha Parihar	Dr. Vineet Gaur
16.	Ms. Mona Kumari	Dr. Debasis Chattopadhyay
17.	Ms. Muskaan Johnson	Dr. Aashish Ranjan
18.	Mr. Phulendra Kumar Bharti	Dr. Debasis Chattopadhyay
19.	Ms. Priti	Dr. Gitanjali Yadav
20.	Ms. Priya Yadav	Dr. Soundararajan Prabhakaran

S. No.	Name of the Student	Name of the Supervisor/Co-supervisor
21.	Mr. Rupak Saha	Dr. Mukesh Kumar Meena
22.	Mr. Sambit Subhankar Nayak	Dr. Prabhakaran Sundararajan
23.	Mr. Sanjay T D	Dr. Hasthi Ram
24	Ms. Shambhavi Srivastava	Dr. Pawan Kumar Jewaria
25	Ms. Sheetal Singh	Dr. Shailesh Kumar
26	Ms. Sohela	Dr. Manoj Majee
27	Ms. Suman Saini	Dr. Senthil-Kumar Muthappa
28	Ms. Tripti Avinash	Dr. Pinky Agarwal

Students pursuing Ph. D. at the Institute (excluding those enrolled during 2023-24)

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
1.	Mr. Gourav Singh	Dr. Sabhyata Bhatia
2.	Ms. Archana	Dr. Subhra Chakraborty
3.	Ms. Latika Bhola	Dr. Subhra Chakraborty
4.	Mr. Baljinder Singh	Dr. Sabhyata Bhatia
5.	Mr. Anirban Chakraborty	Dr. Sabhyata Bhatia
6.	Ms. Harshita Bharti Saksena	Dr. Ashverya Laxmi
7.	Mr. Sunil Kumar	Dr. Subhra Chakraborty/Dr. Niranjan Chakraborty
8.	Ms. Atreyee Sengupta	Dr. Subhra Chakraborty
9.	Ms. Paheli Malakar	Dr. Debasis Chattopadhyay
10.	Mr. Shubhashis Das	Dr. Ashutosh Pandey/Dr. Jitendra K. Thakur
11.	Ms. Richa Priyadarshini	Dr. Pinky Agarwal
12.	Ms. Priya Jaiswal	Dr. Pinky Agarwal
13.	Ms. Aditi Dwivedi	Dr. Aashish Ranjan
14.	Ms. Sushma Sagar	Dr. Amarjeet Singh
15.	Mr. Jogindra Naik	Dr. Ashutosh Pandey
16.	Mr. Dhanraj Singh	Dr. Alok Krishna Sinha
17.	Ms. Manisha	Dr. Sabhyata Bhatia
18.	Mr. Pawandeep Singh Kohli	Dr. Jitender Giri/Dr. Jitendra K. Thakur
19.	Ms. Pallabi Thakur	Dr. Aashish Ranjan/Dr. Jitendra K. Thakur
20.	Mr. Abhishek Prasad	Dr. Gitanjali Yadav
21.	Mr. Prakhar	Dr. Ashverya Laxmi
22.	Mr. Sanjay	Dr. Ashverya Laxmi
23.	Mr. Mohan Varghese	Dr. Naveen Chandra Bisht
24.	Ms. Bhanu Malhotra	Dr. Naveen Chandra Bisht
25.	Mr. Sourav Chatterjee	Dr. Aashish Ranjan/Prof. Ananda K. Sarkar

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
26.	Ms. Amrita Pradhan	Dr. Gopaljee Jha
27.	Ms. Akanksha Bhardwaj	Dr. Senjuti Sinharoy
28.	Ms. Deevita Srivastava	Dr. Senjuti Sinharoy
29.	Ms. Anshika Pandey	Dr. Amar Pal Singh
30.	Ms. Loitongbam Lorinda Devi	Dr. Amar Pal Singh
31.	Ms. Deepika	Dr. Amarjeet Singh
32.	Ms. Komal Vitthalrao Mali	Dr. Senthil-Kumar Muthappa
33.	Mr. A. T. Vivek	Dr. Shailesh Kumar
34.	Ms. Rumi	Dr. Alok Krishna Sinha/Dr. Jitender Giri
35.	Ms. Sarvesh Jonwal	Dr. Alok Krishna Sinha
36.	Mr. Asish Kumar Padhy	Dr. Sabhyata Bhatia
37.	Ms. Athira M. Nair	Dr. Jyothilakshmi Vadassery/Prof. Praveen Verma
38.	Ms. Jyoti Maurya	Dr. Manoj Prasad
39.	Ms. Kajol BM Singh	Dr. Manoj Prasad/Dr. Jitendra K. Thakur
40.	Ms. Prabha	Dr. Gitanjali Yadav
41.	Mr. Halidev Krishna Botta	Dr. Ashverya Laxmi
42.	Mr. Rakesh Kumar Achary	Dr. Manoj Majee
43.	Ms. Avni Mann	Dr. Naveen Chandra Bisht
44.	Mr. Manbir	Dr. Jagadis Gupta Kapuganti
45.	Ms. Rekha	Dr. Jagadis Gupta Kapuganti
46.	Ms. Nidhi Gandhi	Dr. Amar Pal Singh/Prof. Ananda K. Sarkar
47.	Mr. Debashis Sahoo	Dr. Gopaljee Jha
48.	Ms. Anjali	Dr. Senthil-Kumar Muthappa
49.	Ms. Apoorva Gupta	Dr. Saloni Mathur
50.	Ms. Kanika Maurya	Dr. Jitender Giri
51.	Ms. Antima Yadav	Dr. Pinky Agarwal
52.	Mr. Jitendra Kumar Mohanty	Dr. Swarup K. Parida
53.	Ms. Shruti Mishra	Dr. Jyothilakshmi Vadassery
54.	Ms. Shreya Gupta	Dr. Amar Pal Singh
55.	Ms. Shobha	Dr. Subhra Chakraborty
56.	Ms. Kajal	Dr. Subhra Chakraborty
57.	Ms. Shalini Yadav	Dr. Debasis Chattopadhyay
58.	Mr. Shubham Bhardwaj	Dr. Sabhyata Bhatia
59.	Ms. Susmita Sett	Dr. Manoj Prasad
60.	Ms. Kamlesh Kumari	Dr. Gitanjali Yadav
61.	Ms. Shikha Gautam	Dr. Manoj Majee

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
62.	Ms. Nidhi Yadav	Dr. Jagadish Gupta Kapuganti
63.	Mr. Aswin Reddy Chilakala	Dr. Senthil-Kumar Muthappa
64.	Mr. Rishabh Mirchandani	Dr. Senthil-Kumar Muthappa
65.	Ms. Monika Shrivastava	Dr. Saloni Mathur
66.	Ms. Aswathi P V	Dr. Pinky Agarwal
67.	Ms. Misha Kumari	Dr. Jyothilakshmi Vadassery
68.	Ms. Prakshi Aneja	Dr. Aashish Ranjan
69.	Ms. Priya Upadhyay	Dr. Senjuti Sinharoy
70.	Ms. Kamali S	Dr. Amarjeet Singh
71.	Ms. Kamankshi Sonkar	Dr. Amarjeet Singh
72.	Mr. Samar Singh	Dr. Ashutosh Pandey
73.	Mr. Adesh Kumar	Dr. Saloni Mathur
74.	Mr. Aman	Dr. Debasis Chattopadhyay
75.	Mr. Anurag Panchal	Dr. Manoj Prasad
76.	Mr. Ashis Majhi	Dr. Hasthi Ram
77.	Ms. Banita Yadav	Dr. Hasthi Ram
78.	Ms. Iqra Nafees Khan	Dr. Subhra Chakraborty
79.	Ms. Kajal	Dr. Naveen Chandra Bisht
80.	Ms. Kavita Joshi	Dr. Gitanjali Yadav
81.	Ms. Kratika Singh	Dr. Amar Pal Singh
82.	Ms. Lavanya Mittal	Dr. Alok Krishna Sinha
83.	Mr. Mahesh Kumar Panda	Dr. Aashish Ranjan
84.	Ms. Mandavi Pandey	Dr. Jitender Giri
85.	Ms. Mandira Roy	Dr. Gopaljee Jha
86.	Mr. Mohit Kumar	Dr. Subhra Chakraborty
87.	Ms. Pragya Nalwa	Dr. Subhra Chakraborty
88.	Ms. Rajni Yadav	Dr. Gopaljee Jha
89.	Mr. Sanjib Bal Samant	Dr. Jagadis Gupta Kapuganti
90.	Ms. Sapna	Dr. Manoj Prasad/Dr. Sabhyata Bhatia
91.	Ms. Shivangi Mahawar	Dr. Manoj Majee
92.	Mr. Shubhashish Ranjan	Dr. Senthil-Kumar Muthappa
93.	Mr. Tuhin Das	Dr. Manoj Prasad
94.	Mr. Uttam Pal	Dr. Alok Krishna Sinha
95.	Ms. Vasundara Devi S	Dr. Aashish Ranjan
96.	Ms. Amrutha Laie	Dr. Jyothilakshmi Vadassery
97.	Mrs. Anjala K.	Dr. Naveen Chandra Bisht

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
98.	Mr. Atul Bahukhandi	Dr. Debasis Chattopadhyay
99.	Ms. Awele Letro	Dr. Sundararajan Prabhakaran
100.	Mr. Debasish Ghosh	Dr. Saloni Mathur
101.	Ms. Falah Qasim	Dr. Pinky Agarwal
102.	Ms. Fiza Hamid	Dr. Shailesh Kumar
103.	Mr. Gokul Babu S.	Dr. Sundararajan Prabhakaran
104.	Ms. Himani Chhatwal	Dr. Ashutosh Pandey
105.	Mr. Jagannath Swain	Dr. Jagadis Gupta Kapuganti
106.	Ms. Josepheena Joseph	Dr. Jagadis Gupta Kapuganti
107.	Mr. Mandeep	Dr. Gitanjali Yadav
108.	Ms. Muskan Bansal	Dr. Alok Krishna Sinha
109.	Mr. Naveen Goel	Dr. Gopaljee Jha
110.	Ms. Nisha	Dr. Swarup K. Parida/Dr. Subhra Chakraborty
111.	Mr. Rajarshi Sanyal	Dr. Aashish Ranjan
112.	Mr. Rajib Kumbhakar	Dr. Swarup K. Parida
113.	Ms. Richa Virmani	Dr. Saloni Mathur
114.	Mr. Sankhadeep Chowdhury	Dr. Hasthi Ram
115.	Mr. Saroj Laha	Dr. Manoj Majee
116.	Ms. Shital Sandhya	Dr. Ashverya Laxmi
117.	Ms. Shubhangi Pandey	Dr. Alok Krishna Sinha
118.	Ms. Simran	Dr. Shailesh Kumar
119.	Mr. Subham Agarwal	Dr Amar Pal Singh
120.	Ms. Sushmita Seni	Dr. Manoj Prasad
121.	Ms. Upasana Das	Dr. Pinky Agarwal
122.	Mr. Vikash Bhadu	Dr. Senjuti Sinharoy
123.	Mr. Vishakh Vijayan	Dr. Jyothilakshmi Vadassery

Ph. D. Degree awarded to NIPGR Scholars

The Jawaharlal Nehru University, New Delhi awarded the degree of Doctoral of Philosophy to the following scholars of the Institute during the year (2023-24) under report:

S. No.	Name of the Student	Thesis Title	Name of the supervisor / co-supervisor
1.	Dr. Archna Tiwari	Dissecting the complex nexus between glucose and hormone signalling in regulating shade avoidance response in *Arabidopsis thaliana*	Dr. Ashverya Laxmi
2.	Dr. Bikash Raul	Determination of the Role of CAPs (Cystein-Rich Secretory Proteins, Antigen 5 and Pathogenesis Related 1 proteins) in *Arachis-Bradyrhizobium* Symbiosis	Dr. Senjuti Sinharoy
3.	Dr. Yasir Arafat	Study of disease vs. defence mechanism during stem rot in jute by proteomics analyses	Dr. Subhra Chakraborty
4.	Dr. Samiksha Saxena	Identification and functional characterization of genes involved in flavonoid biosynthesis pathway in chickpea (*Cicer arietinum* L.)	Dr. Ashutosh Pandey
5.	Dr. Jaishri Rubina Das	Understanding post-transcriptional regulatory networks in response to heat stress in tomato	Dr. Saloni Mathur
6.	Dr. Mohini Jaiswal	Computational approaches to study plant-derived peptides having biological activities	Dr. Shailesh Kumar
7.	Dr. Gopal Banerjee	Regulation of Cell-cycle by Mitogen Activated Protein Kinase in Plant	Dr. Alok Krishna Sinha
8.	Dr. Chandni Bansal	Elucidation of microRNA-mediated regulatory networks in response to combined heat and drought stress in tomato (*Solanum lycopersicum* L.)	Dr. Saloni Mathur
9.	Dr. Rekha Agrawal	Role of Mediator in root architecture of *Arabidopsis thaliana*	Dr. Jitendra K. Thakur
10.	Dr. Ruchika	Identification and functional characterization of Proanthocyanadin specific transcription factor(s) from banana	Dr. Ashutosh Pandey
11.	Dr. Megha Choudhary	Interaction of CIPK6 and MAPK pathways in pathogen triggered immunity in *Arabidopsis*	Dr. Debasis Chattopadhyay

Researchers other than Ph.D. students

Research Associates/Post Docs

S. No.	Name of Researchers
1	Abhimanyu Jogawat
2	Abinaya Manivannan
3	Abira Choudhuri
4	Afsana Praveen
5	Anil Kumar
6	Anjali Pande
7	Ankita Prusty
8	Aprajita Kumari
9	Ashish Prasad
10	Balaji M.
11	Chitra Bhatia
12	D. Balasubramaniam
13	Deepika Sharma
14	Donde Ravindra Dutta
15	Gauri Arora
16	Gautam Jamra
17	Harsha Samnta
18	Jadhav Mangesh Pralhad
19	Jitender Kumar
20	Jitender Singh
21	Joyati Das
22	Jyoti Bhadouria
23	Kanchan Jumrani
24	Kanika Narula
25	Kristi Kabyashree
26	Laxmi
27	Lokesh Verma

S. No.	Name of Researchers
40	Rahul Kumar
41	Ramgopal Prajapati
42	Rashmi Gangwar
43	Ravindra Kumar Chandan
44	Rengasamy BalaKrishnan
45	Rishi Srivastava
46	Paramita Bera
47	Pinky
48	Piyush Priya
49	Pravin Kumar
50	Priyanka Dhakate
51	Priyanka Deveshwar
52	Pooja Singh
53	Poonam Kumari
54	Prachi Pandey
55	Praveen Rai
56	Ritesh Kumar Yadav
57	Roshan Kumar Singh
58	Sameer Dixit
59	Seema Praveen
60	Shambhavi Sharma
61	Shiksha Chaurasia
62	Shivi Tyagi
63	Sonam Chaudhary
64	Sudhakar Srivastava
65	Surbhi Dutta Tripathi
66	Sweta Bhambhani

28	Mamta Rani
29	Megha Gupta
30	Mrinalini Manna
31	Mustafa Raza
32	Nandita Pasari
33	Neetu Verma
34	Nidhi Singh
35	Nilesh Kumar Sharma
36	Niraj Kumar Vishwakarma
37	Niraj Singh
38	Palakurthi Ramesh
39	Paragya Barua
67	Shreya Chowdhury
68	Vinod Kumar Prajapati
69	Vijay Wardhan
70	Vinod Kumar Jangid
71	Virevol Thakro
72	Yashwant Kumar Singh
73	Anish Kundu
74	Annesha Ghosh
75	Nitin Jain
76	Aishwarye Sharma
77	Ravindra Kumar Chandan

Project Fellows

S. No.	Name of Researchers
1	Aarzoo Qamar
2	Ankita Sharma
3	Anand Sreekumar
4	Akansha Singh
5	Anchal Garg
6	Alka Bishnoi
7	Aryaman
8	Ankit
9	Aman
10	Arvind Kumar
11	Amal Roul
12	Asim Gosh
13	Astha Ranjan
14	Bhagat Singh
15	Bhanu Pratap Singh
16	Biswaranjan Rout
17	Deepanshi Rathore
41	Neha Sharma
42	Nidhi Varshney
43	Nikhil
44	Nirankush Kumar
45	Niyati Bisht
46	Niyaz Ahmed
47	Oceania Chirom
48	Oindrila Bhattacharjee
49	Pallavi
50	Philip Francis
51	Priyanshu Gautam
52	Priyanka Singh
53	Rajani Sharma
54	Rajul Tayal
55	Rim Chaudhury
56	Ritesh Kumar Raipuria
57	Rudra Narayan Sahoo

S. No.	Name of Researchers
18	Deepak Bajaj
19	Dhananjay Sharma
20	Dhriti Singh
21	Dulla Sandeep
22	Durgadevi A.
23	Farheen Saifi
24	Ganpat Sharma
25	Garima Kalakoti
26	Gaurav Jain
27	Gourav Singh
28	Harshita Saksena
29	Jagriti Shukla
30	Kavya Jeyakumar
31	Kirti Singh
32	Kuldeep Singh
33	Krishna R Acharya
34	Koushik Halder
35	Madhan Sanyasi
36	Mahendra Pawar
37	Manish Kumar Sharma
38	Medha Panthri
39	M. Prabhu
40	Namrata Sahu

S. No.	Name of Researchers
58	Rushail
59	Sadhan Debnath
60	Sayantan Bhattacharya
61	Sakshi Chaudhary
62	Sheeba Naaz
63	Shaswati Sardar
64	Shivank Parashar
65	Shuaib Khassin
66	Shruti
67	Simran Chaudhary
68	Sonia
69	Sonu Kumar
70	Srija Chakraborty
71	Sudhir Kumar
72	Sujamol Pillai
73	Supriya P. Swain
74	Tota Mondal
75	Ujjwal Sirohi
76	Vaishali Gautam
77	Vidhi Verma
78	Vaishnavi Mukkawar
79	Vivek Kumar
80	Zainab Mirza

Training Programme

The Institute accepts students from different Universities/Institutes as trainees and provides them facilities and guidance. A list of students from various universities/institutions trained by faculty of the Institute is given below:

Trainees at Under Graduate level

Ms. Ananya Singh	B.Tech, Biotechnology, Department of Bioscience and Biotechnology, Banasthali Vidyapith, Rajasthan
Mr. Parth Chaddha	BS-MS Dual Degree, Department of Biological Sciences, Indian Institute of Science Education and Research (IISER), Bhopal
Mr. Bharat Maitraya	B.Sc. Life Sciences from Delhi University, Dyal Singh College
Miss. Meghna Pillai	B.Sc. Life Sciences from Delhi University, Dyal Singh College
Mr. Jeevan Kumar Nayak	University of Agricultural Sciences, Bangalore, College of Agriculture, Karnataka
Ms. Rashmi	G.R. University of Agriculture Sciences, Bangalore, Karnataka
Mr. Anand Prajapati	B.Sc. Department of Biological Sciences, Sri Venkateswara College, Delhi
Mr. Pushkar Gopal	Amity University Kolkata (Special case)
Ms. Anjali Sahu	B. Tech (Biotechnology), Amity University, Madhya Pradesh
Mr. Sourav	B. Tech (Biotechnology), Deen Bandhu Chotu Ram University, Sonipat, Haryana
Mr. Manish Kumar	B. Tech, DTU, New Delhi
Mr. Abhinav Kumar	B. Tech, Lovely Professional University, Phagwara
Mr. Harsh Chauhan	B. Tech, Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Haryana
Ms. Esha Vinay Tailor	B.Sc. DBT, School of Sciences, PPSU University, Kosamba, Surat

Trainees at Post Graduate level

Ms. Sohela	M. Tech Kaling Institute of Industrial Technology, Bhubaneswar
Ms. Prisita Priyadarsani	M.Sc. NIIS Institute of Information Science & Management, Bhubaneswar
Mr. Narendra Singh	B.Sc. + M.Sc. (Dual degree) Amity Institute of Biotechnology, Amity University, Kolkata

Ms. Sristi Sinha	M.Sc. Vellore Institute of Technology, Tamil Nadu
Ms. Shefali Mohan	M.Sc. (Biotechnology), Central University of Harana, Haryana,
Ms. Jaya	M.Sc. (Biotechnology), Department of Bio and Nano Technology, Guru Jambheshwar University of Science and Technology, Hisar, Haryana
Mr. Waheb Mehdi	B.Sc. Aligarh Muslim University, Aligarh
Ms. Mahvish Fatima	B.Sc. Swami Shraddhanand College, New Delhi
Mr. Amit	M.Sc. Central University of Haryana, Haryana
Mr. Satyam Kumar Singh	BSMS, IISER Berhampur, Odisha
Ms. Bornita Bose	M.Sc. (Biotechnology), Jadavpur University
Ms. Abhilasha Shekhawat	M.Sc. (Biotechnology), South Asian University, New Delhi
Ms. Mrigya Tripathi	M.Sc. (Biotechnology), DBT, TERI School of Advanced Studies, New Delhi
Ms. Swati Neha	M.Sc. (Biotechnology), Dept. of Biotechnology, Gaya College, Gaya, Bihar
Ms. Urvashi Lomas	M.Sc. (Biochemistry), Department of Biochemistry, Jamia Hamdard University, New Delhi
Ms. Sneha Bhat	M.Sc. (Biochemistry), Fergusson College, Pune
Ms. Vani Vivek	Integrated M.Sc., NISER, Bhubaneswar
Ms. Yuvasri	M.Sc., School of Life Sciences, Trichy, Tamil Nadu
Mr. Irfana Thesni KT	BS-MS, IISER, Tirupati, Karakambadi Road, Andhra Pradesh
Ms. Aarsi Saini	M.Sc. Central University of Haryana, Mahendergarh, Haryana
Ms. Ardra Muraleedharan Pillai	M.Sc. Amity Institute of Microbial Technology, Amity University, Uttar Pradesh, Noida
Mr. Vinit Chauhan	M.Sc. Central University of Haryana, Haryana
Ms. Shafeeda Valappara	M.Sc. KAHM University Women College, Manjeri, Kerala
Ms. Niya Parvathi V A	M.Sc. (Integrated) Cochin University and Technology, Kalamassery, Ernakulam
Ms. Chaitali Narendra Chavan	M.Sc. (Biotechnology) Savitribai Phule Pune University
Ms. Krisha Rajajoshi Kalpeshkumar	M.Sc. (Biotechnology) Amrita Vishwa Vidhyapeetham, Kerala
Mr. Sachin Anurag	M.Sc. Biotechnology Central University of South Bihar, Gaya
Mr. Uzair Bashir	Department of Clinical Biochemistry, University of Kashmir, Srinagar

Ms. Rida Fatima	M.Sc. Department of Clinical Biochemistry, University of Kashmir, Srinagar
Mr. Samson Maria Vimalan	M.Sc. D.Y. Patil Deemed to be University
Mr. Sidhardh H. Menon	M.Sc. Amrita Vishwa Vidhyapeetham, Amritapuri, Kollam
Ms. Theertha Surendran	M.Sc. Amity Institute of Microbiology, Noida
Mr. Dwimu Basumatary	Indira Gandhi National Tribal University, Amarkantak, through Joint Science Academies, Summer Research Fellowship Programme
Ms. M.S. Anulekshmi	MMNSS College, Kollam, Kerala through Joint Science Academies, Summer Research Fellowship Programme
Mr. Gokul P	M. Tech (Bio), Bharathidasan University, Tiruchirappalli, Tamil Nadu
Ms. Anjali Sharma	M.Sc. (Biotechnology), Jamia Hamdard, Hamdard Nagar, New Delhi
Ms. Tanishka Uttam	M.Sc. School of Advanced Studies, TERI, Delhi
Ms. Shashi Sarika	M.Sc. (Biotechnology), P.G. Dept. of Biotechnology, A.N. College, Patna
Mr. Debadip Bhattacharjee	M.Sc. Plant Molecular Biology, North Eastern Hill University, NEHU, Shillong
Ms. Prachi Tripathi	M.Sc. (Bioinformatics) Central University of Allahabad, UP
Ms. Shruti Mishra	M.Sc. (Bioinformatics) Central University of Allahabad, UP
Ms. Harneet Kaur	M. Tech (Biotechnology) AKS University, Satna, M.P.
Ms. Ritu Yadav	M.Sc. (Biotechnology) Central University of Haryana, Mahendergarh, Haryana
Ms. Sonali Sinha	M.Sc. Department of Bioinformatics, Central University of South Bihar, Gaya
Ms. Mohini Gautam	M.Sc. (Biotechnology) from Pondicherry University,
Mr. Rupam Shankar	M.Sc. (Biotechnology) Central University of Haryana, Mahendergarh
Ms. Zubida Bano	M.Sc. Biotechnology, from Central University of Haryana, Mahendergarh
Mr. Rupam Sarkar	M.Sc. (Biotechnology) Central University of Haryana
Ms. Zubida	M.Sc. (Biotechnology) Central University of Haryana, Haryana
Ms. Aishwarya S Nair	M.Sc. St. Berchmans College, Kerala
Mr. Perumandla Manideep Goud	M.Sc. Central University of South Bihar, Gaya, Bihar

Ms. Poulami Pharikal	M.Sc. (Bio.) Maulana Abul Kalam University of Technology, Kolkata
Ms. Pooa Singh	M.Sc. (Bioinformatics) Central University of South Bihar, Gaya
Ms. Renu Yadav	M.Sc. (Biotechnology) Central University of Haryana, Haryana
Ms. Surabhi Rani	M.Sc. (Biotechnology) Central University of Haryana, Mahendergarh
Mr. Jigyasu Gaurav	M.Sc. (Biotechnology) Rani Durgavati University, Jabalpur, M.P.
Ms. Nisha Dhruw	M.Sc. Biotechnology, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh
Ms. Sakshi Sharma	M.Sc. Biotechnology, Hari Singh Gour University, Sagar, M.P.
Mr. Guntha Shiva Brahmam	M.Sc., (Bioinformatics) Central University of South Bihar, Gaya, Bihar
Ms. Karishma Khator	M.Sc. (Biotechnology) Mar Athanasios College For Advanced Studies Tiruvalla, Kottayam, Kerala
Mr. Sadaf	M.Sc. (Biotechnology) Central University of Haryana, Mahendergarh, Haryana
Ms. Divya	M.Sc. (Biotechnology) Central University of Haryana, Haryana
Ms. Sanya Bajaj	M.Sc. (Biotechnology) Department of Bio and nano Technology, Guru Jambheshwar university of Science and Technology, Hisar, Haryana.
Ms. Alka Bishnoi	M.Sc. University of Rajasthan, Jaipur
Ms. Pooja Kanwar Shekhawat	M.Sc. University of Rajasthan, Jaipur
Ms. Kanchan Yadav	M.Sc. D.D.U. Gorakhpur University

Trainees at Scientist level

Dr. Krishna Kumar Choudhary	INSA Visiting Fellow
Dr. Marwa Waseem A. Halmy	CV Raman Award, Alexandria University, Egypt
Dr. Gagandeep Gahlay	INSA Visiting Fellow, Guru Nanak Dev University, Amritsar
Mr. Suryakant Manik	Professional Attachment Training ICAR-Indian Institute of Agricultural Biotechnology, Ranchi,
Dr. Tanu Shree	Visiting Fellow, Gargi College, New Delhi
Dr. Peter Murray-Rust	Hamied Visiting Scientist Program Fellow, University of Cambridge, U.K.

Grant-in-Aid Schemes

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
1	Prof. Asis Datta	Biotechnological approaches to improve shelf life, productivity of vegetables- (Tomato)	DBT Govt. of India
2	Dr. Subhra Chakraborty	Development of in-silico platform for analysis of high-throughput Genomics, transcriptomics, and proteomics data: Application to human/plant and its pathogens - National Network Project of CSIR-Institute of Genomics and Integrative Biology, New Delhi	DBT Govt. of India
3	Dr. Subhra Chakraborty	Deciphering role(s) of effectors, post-translational modification and transcriptional regulation during effector triggered immunity in multi-host response against Fusarium disease in worm and chickpea	SERB Govt. of India
4	Dr. Subhra Chakraborty	J. C. Bose Fellowship	SERB Govt. of India
5	Dr. Subhra Chakraborty	Characterization of chickpea germplasm resource to accelerate genomics-assisted crop improvement", under mission programme of "Characterization of genetic resources	DBT Govt. of India
6	Dr. Subhra Chakraborty	A National Mission Mode Program on Nutritional Improvement of Digestible Protein Content and Quality in Rice	DBT Govt. of India
7	Dr. Debasis Chattopadhyay	J. C. Bose Fellowship: Role of cytokinin oxidase in root development and mineral accumulation in chickpea	SERB Govt. of India
8	Dr. Alok Krishna Sinha	J.C. Bose fellowship – Investigation of molecular mechanism of submergence tolerance rice	SERB Govt. of India
9	Dr. Sabhyata Bhatia	Generating genomic resources for facilitating genetic enhancement of selective Vigna species and Horse gram- Genetic Enhancement of Minor Pulse	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
10	Dr. Manoj Prasad	Multi-omics study on the factors affecting the shelf-life of model nutricereal, foxtail millet (*Setaria italica* L.)	SERB Govt. of India
11	Dr. Manoj Prasad	J.C. Bose fellowship – Functional characterization of Ubiquitin conjugation pathway genes for delineating its role in Tomato leaf curl disease tolerance in tomato	SERB Govt. of India
12	Dr. Manoj Prasad	Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving Climate Resilience, Productivity and Nutritional quality" under mission programme of "Characterisation of Genetic Resources", Sub Project- I: "Germplasm genomics for trait discovery"	DBT Govt. of India
13	Dr. Manoj Prasad	Genetic engineering of ubiquitin-proteasome pathway gene (SIRPT4a) for providing tolerance against ToLCNDV in tomato	DBT Govt. of India
14	Dr. Manoj Prasad	Cambridge India Network for Translational Research in Nitrogen-2	DBT Govt. of India
15	Dr. Gitanjali Yadav	Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies" (TIGR2ESS)	University of Cambridge Govt. of UK
16	Dr. Ashverya Laxmi	J.C. Bose fellowship	SERB Govt. of India
17	Dr. Ashverya Laxmi	Cytokinin regulation of shade avoidance response in plants	SERB Govt. of India
18	Dr. Ashverya Laxmi	Exploration of heat and cytokinin signaling interaction for enhancing thermomemory in plants	DBT Govt. of India
19	Dr. Manoj Majee	Investigation of the role of AtSKIP31-JAZ-ABI TFs module in integrating ABA-JA signaling for the acquisition of seed desiccation tolerance and seed vigor in *Arabidpsis thaliana*	SERB Govt. of India
20	Dr. Naveen C. Bisht	Phytochemical composition of organic fruits and vegetables cultivated in the High-Altitude Region (Leh-Ladhak), India	DRDO Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
21	Dr. Naveen C. Bisht	DBT-UDSC Partnership Centre on Genetic Manipulation of Brassicas-Phase-II	DBT Govt. of India
22	Dr. Naveen C. Bisht	Investigating the molecular-genetic basis of multifunctional glucosinolate transporters (GTR1/ GTR2) in Brassica crops- S. Ramachandran National Bioscience Award	DBT Govt. of India
23	Dr. Naveen C. Bisht	Fruit composition profile of brinjal, capsicum and tomato varieties grown under different crop growth conditions	DRDO Govt. of India
24	Dr. Jagadis Gupta Kapuganti	Unravelling the interaction of mineral nutrition (N and K) and vitamin B6 metabolism for sustainable agricultural practices	INDO-SWISS joint research project
25	Dr. Jagadis Gupta Kapuganti	Increasing nitrogen use efficiency via modulation of Phytoglobins	IGNITE Life Sciences
26	Dr. Jagadis Gupta Kapuganti	Novel and cost-effective technology to prevent post-harvest losses of fruits- Sree Padmavathi Venkateswara Foundation (Sree PVF)	Sree Ramkrishna Paramahamsa Research Grants
27	Dr. Jagadis Gupta Kapuganti	Platform for Measurement of Free Radicals (PMFR)	DBT Govt. of India
28	Dr. Saloni Mathur	Investigating the microRNA169: Nuclear Factor-YA module as a potential target for early maturation and yield enhancement under control and heat stress conditions in tomato	SERB Govt. of India
29	Dr. Gopaljee Jha	Enhancing sheath blight disease tolerance in rice under Swarna Jayanti Fellowship	DSt Govt. of India
30	Dr. Gopaljee Jha	Imparting sheath blight disease tolerance in rice	DBT Govt. of India
31	Dr. Gopaljee Jha	Understanding the molecular secrets of antifungal and antibacterial activity of *Burkholderia gladioli* strain NGJ1 and utilization thereof for disease control in rice	SERB Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
32	Dr. Jitender Giri	Improving crop yield in dry and nutrient-poor soil via more resilient rice varieties	University of Nottingham, UK
33	Dr. Jitender Giri	Beyond transgenic plants: use of precise genome editing for improving plant growth under low phosphorus input	INDO-SWISS joint research project
34	Dr. Jitender Giri	Unlinking phosphate deficiency responses from their adverse effects on growth in rice	DSt Govt. of India
35	Dr. Jitender Giri	Targeting Pup 1 independent mechanisms for improving low soil phosphorus tolerance and use- efficiency in rice	DBT Govt. of India
36	Dr. Swarup K. Parida	Integrated genomic strategy for accelerating domestication of rice bean (*Vigna umbellata*)- Genetic Enhancement of Minor Pulse	DBT Govt. of India
37	Dr. Swarup K. Parida	Genetic dissection of flowering-and-podding-efficiency for enhancing yield stability and productivity in chickpea- S-Ramachandran National Bioscience Award	DBT Govt. of India
38	Dr. Pinky Agarwal	A novel miRNA-target module controlling rice grain size: Identification, confirmation, and elucidation of its role in grain development and other seed-related traits, targeting crop improvement	SERB Govt. of India
39	Dr. Jyothilakshmi Vadassery	EMBO Global Investigator Network Grant	Govt. of Germany
40	Dr. Jyothilakshmi Vadassery	The chemical ecology of high L-DOPA containing plants and their interaction with herbivores	DBT Govt. of India
41	Dr. Jyothilakshmi Vadassery	Identification of Spodoptera derived herbivore associated molecular patterns (HAMP) that modulate induced plant defense	DBT Govt. of India
42	Dr. Jyothilakshmi Vadassery	Metabolomic analysis of fungal endophyte induced systemic resistance in Solanum lycopersicum on herbivory by Spodoptera litura	SERB Govt. of India
43	Dr. Aashish Ranjan	Understanding genetic and molecular intricacies of high ambient temperature-regulated leaf size	SERB Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
44	Dr. Aashish Ranjan	Characterization of Genetic Resources: Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large scale utilization of gene bank collections of rice	DBT Govt. of India
45	Dr. Senjuti Sinharoy	Determination the role of (Cysteine- Rich Secretory Proteins, Antigen 5, and Pathogenesis-Related 1 Proteins (CAP) during Arachis-Bradyrhizobium symbiosis	DBT Govt. of India
46	Dr. Senjuti Sinharoy	Understanding the molecular mechanism behind the peripheral vascular bundle patterning in legume nodule	SERB Govt. of India
47	Dr. Senjuti Sinharoy	Generation of a retrotransposon-based mutant population of chickpea for functional genomics studies	DBT Govt. of India
48	Dr. Amar Pal Singh	Investigating the molecular basis of plant adaptation under the combinatorial stress of low nitrogen and high salinity	SERB Govt. of India
49	Dr. Amarjeet Singh	Genetic dissection of 13-lipoxygenases to modulate JA biosynthesis for enhanced N, P, K deficiency tolerance in rice	SERB Govt. of India
50	Dr. Amarjeet Singh	Molecular and genetic analysis of phosphorus (P) deficiency related phospholipases for enhanced P deficiency tolerance in rice	SERB Govt. of India
51	Dr. Shailesh Kumar	National Network Project of Indraprastha Institute of Information Technology, Delhi	DBT Govt. of India
52	Dr. Shailesh Kumar	Plan Genomics, Gene Regulatory Network and Novel RNA Molecules and NNP Project: Network Project on Crop Bioinformatics", under "Establishment of Bioinformatics and Computational Biology Centre	DBT Govt. of India
53	Dr. Shailesh Kumar	Integrated Multi-omics for Knowledge-based Crop Improvement for Abiotic Stress Tolerance	DBT Govt. of India
54	Dr. Shailesh Kumar	National Network Project of Jawaharlal Nehru University, New Delhi	DBT Govt. of India

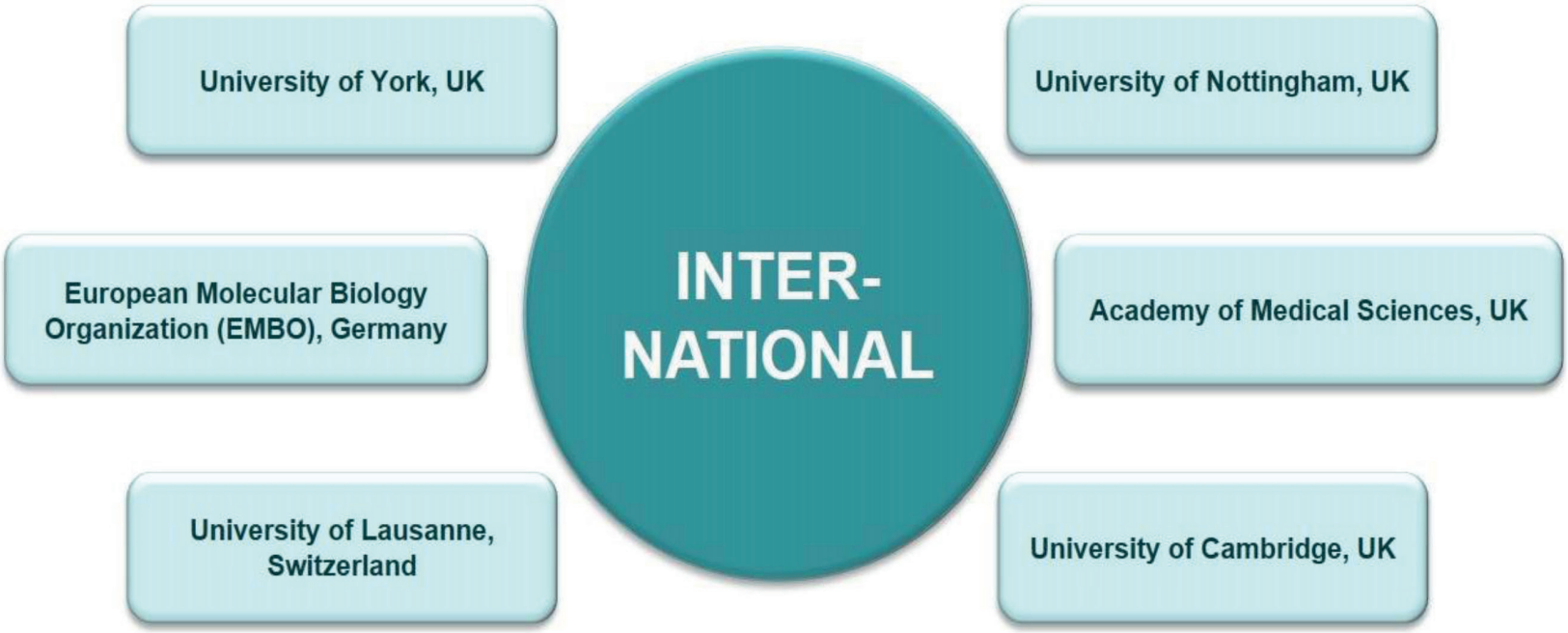
Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
55	Dr. Shailesh Kumar	National Network Component-IICB	DBT Govt. of India
56	Dr. Shailesh Kumar	Decoding Agronomically Important metabolic Pathways in Rice, Chickpea and Ginger	DBT Govt. of India
57	Dr. Shailesh Kumar	Deciphering the abiotic stress-induced tRF-mRNA regulatory network in *Arabidopsis and rice*	SERB Govt. of India
58	Dr. Ashutosh Pandey	National Certification System for Tissue Culture Raised Plants (NCS-TCP)	DBT Govt. of India
59	Dr. Ashutosh Pandey	Development of D-allulose based nano-formulations for enhanced stress tolerance and increased crop productivity	DBT Govt. of India
60	Dr. Ashutosh Pandey	Genome editing medicated nutritional improvement of potato (*Solanum tuberosum* L.)	DBT Govt. of India
61	Dr. Ashutosh Pandey	Investigating the synergistic epigenetic and post-transcriptional gene silencing mechanism involved in the regulation of flavonoid biosynthesis in banana *(Musa sp.)*	SERB Govt. of India
62	Dr. Hasthi Ram	INSPIRE Faculty Award	DSt Govt. of India
63	Dr. Hasthi Ram	Construction and functional testing of genome-wide CRISPR-Cas9 library for genome-editing of seed specific genes in *Indica* Rice	SERB Govt. of India
64	Dr. Hasthi Ram	Increasing Iron Level in Rice Grains through Altering the Expression of Vacuolar Iron Transporter (VIT)-Like genes	DBT Govt. of India
65	Dr. Vineet Gaur	Structure and biochemical characterization of plant SLX1, a novel structure-specific endonuclease involved in DNA repair and recombination	SERB Govt. of India
66	Dr. Vineet Gaur	Ramalingaswami Fellowship: Structural studies of proteins involved in DNA repair and recombination in plants	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
67	Dr. Prabhakaran Soundararajan	Evolutionary developmental (evo-devo) genetics study on stem cell fate and cell identity transition between diverse *Brassica oleracea* morphotypes	SERB Govt. of India
68	Dr. Prabhakaran Soundararajan	To explore the prevalence and contribution of duplicate genes in rewiring the regulatory network following the whole genome triplication in crop plant cauliflower	SERB Govt. of India
69	Dr. Mukesh Kumar Meena	Characterization of PRL1 function in plant defense responses against insect herbivory	SERB Govt. of India
70	Dr. Pawan Kumar Jewaria	Identification and functional characterization of auxin transporters during pathogen responses through MAP Kinases	SERB Govt. of India
71	Dr. Vikash Kumar Yadav	Deciphering chromatin rewiring during Chickpea Seed Development	DBT Govt. of India
72	Dr. Mamta Rani (Women Scientist WOS-A)	Exploring the role of sugar metabolism and signaling for molecular intervention strategies against sheath blight disease of rice	DSt Govt. of India
73	Dr. Deepika Sharma (INSPIRE Fellow)	Understanding role of MAP Kinase signaling cascade in regulation of peptides encoded by pri-miRNAs in rice	DSt Govt. of India
74	Dr. Sameer Dixit M K Bhan Fellow	Screening and identification of *Spodoptera litura* effectors proteins using RNA interference and its functional validation in plants	DBT Govt. of India
75	Dr. Nandita Pasari M K Bhan Fellow	Identification of molecular players that modulate plant immunity during rhizobial infection of chickpea	DBT Govt. of India
76	Dr. Chitra Bhatia M K Bhan Fellow	Investigating post-transcriptional regulation of jasmonate signalling for improving rice response to environmental stresses	DBT Govt. of India
77	Dr. Abhimanyu Jogawat M K Bhan Fellow	Exploring the link between calcium signaling and sugar transport in the root endophytic mutualism of *Piriformospora indica* and *Arabidopsis thaliana*	DBT Govt. of India

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
78	Dr. Afsana Parveen M K Bhan Fellow	Dissecting the role of S-nitroso glutathione reductase and phytoglobin in anaerobic germination of rice	DBT Govt. of India
79	Dr. Anjali Pande M K Bhan Fellow	Deciphering the Role of Nitric oxide in Mediating Thermomemory in plants	DBT Govt. of India
80	Dr. Abinaya Manivannan (INSPIRE Fellow)	Whole genome de novo assembly and identification of functional genes associated with biosynthesis of quinaxoline alkaloids in *Adhatoda vasica*, a potential medicinal plant	DSt Govt. of India
81	Dr. Sonam Chaudhary (NPDF)	Functional characterization of myrosinases encoding genes for enhanced plant defence in Brassica crop	SERB Govt. of India
82	Dr. Shiksha Chaurasia (NPDF)	Unravelling the key genomic regions/QTLs associated with salt tolerance traits in Lentil (Lens culinary Medikus) using Genotyping-by-Sequencing approaches	SERB Govt. of India
83	Dr. Shivi Tyagi (NPDF)	Investigating flavonoid-specific MATE transporters and their role in banana	SERB Govt. of India
84	Dr. Priyanka Dhakate (BioCARe Women Scientist)	Identification and functional characterization of IncRNAs in foxtail millet in response to abiotic stresses	DBT Govt. of India
85	Dr. Mrinalini Manna (BioCARe Women Scientist)	Functional characterization of a novel gene WRKY transcription factor gene (WRKY107) for its role in conferring phosphorus deficiency tolerance to rice	DBT Govt. of India
86	Dr. Gauri Arora (BioCARe Women Scientist)	Unraveling miRNA-mRNA regulatory modules in chickpea against Fusariumwilt	DBT Govt. of India

Collaborating / Interacting Institutions


NATIONAL
CSIR-Institute Of Genomics And Integrative Biology, Delhi
North Eastern Hill University, Shillong
Institute of Life Sciences, Bhubaneshwar
Ignite Life Science Foundation, Bengaluru
Indraprastha Institute of Information Technology, Delhi
Acharya N. G. Ranga Agricultural University, Hyderabad
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad
Indian Institute of Sugarcane Research, Lucknow, UP
National Bureau of Plant Genetic Resources, New Delhi
National Institute for Plant Biotechnology, New Delhi
St. John's Research Institute, Bengaluru, Karnataka
Centre for Cellular and Molecular Biology, Hyderabad
National Centre for Biological Sciences, Bengaluru, Karnataka
Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, UP
National Agri-Food Biotechnology Institute, Mohali, Punjab
Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, MP
Indian Institute of Agricultural Biotechnology, Ranchi
Jawaharlal Nehru University, Delhi
Indian Institute of Technology, New Delhi
University of Agricultural Sciences, Bengaluru, Karnataka
University of Delhi, South Campus, New Delhi
Defence Research and Development Organisation, Delhi
Punjab Agricultural University, Punjab
National Rice Research Institute, Cuttack, Odisha
Indian Institute of Maize Research, Ludhiana
Indian Institute of Technology, Ropar
Central Soil Salinity Research Institute, Karnal
Vasantdada Sugar Institute, Pune Maharashtra
MS Swaminathan Research Foundation, Chennai
National Institute of Immunology, New Delhi
Indian Institute of Pulses Research, Kanpur
Borlaug Institute for South Asia, Ludhiana
Anand Agricultural University, Gujarat
Sri Karan Narenda Agriculture University, Rajasthan
National Institute of Nutrition, Hyderabad
Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh
Indian Agricultural Research Institute, New Delhi
Panjab University, Chandigarh
Tripura University, Tripura
Rani Lakshmi Bai Central Agricultural University, Jhansi, UP
Center of Innovative and Applied Bioprocessing, Mohali, Punjab
Assam Agricultural University, Assam
Himachal Pradesh Agriculture University, Palampur, HP
Indian Institute of Technology, Roorkee
Regional Centre for Biotechnology, Haryana
Institute of Advanced Study in Science and Technology, Guwahati
Biotechnology Industry Research Assistance Council, New Delhi
National Institute of Technology, Durgapur
Tamil Nadu Agricultural University, Tamil Nadu
Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, Maharashtra
Sher-e-Kashmir University of Agricultural Sciences & Technology, Jammu & Kashmir
G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand
Indian Agricultural Statistics Research Institute, New Delhi
Zonal Agricultural Research Station, Mandya, Karnataka


University of York, UK
University of Nottingham, UK
European Molecular Biology Organization (EMBO), Germany
INTER-NATIONAL
Academy of Medical Sciences, UK
University of Lausanne, Switzerland
University of Cambridge, UK

Committees of the Institute

Society

Dr. Jitendra Singh
Hon'ble Union Minister of State (IC) for
Ministry of Science & Technology
and Earth Sciences
Government of India, New Delhi
(President)

Shri Manish Sisodia
Hon'ble Deputy Chief Minister
and Minister in-charge of Higher Education
Government of Delhi, New Delhi

Dr. Rajesh S. Gokhale
Secretary
Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

Dr. Shekhar C. Mande
Former Director General, Council of Scientific and Industrial Research and Secretary, Department of Scientific & Industrial Research
Government of India, New Delhi

Dr. Trilochan Mohapatra
Former Secretary, Department of Agricultural Research and Education
and Director General, Indian Council of Agricultural Research, Government of India, New Delhi

Shri H. Rajesh Prasad
Pr. Secretary (Higher Education)
Government of Delhi, New Delhi

Shri Chaitanya Murti
Joint Secretary (Administration)
Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

Shri Vishvajit Sahay
Financial Adviser
Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

Dr. Bhushan Patwardhan
Former Vice-Chairman
University Grants Commission, New Delhi

Dr. Ramesh Venkata Sonti
Director
International Centre for Genetic Engineering and Biotechnology
New Delhi

Dr. Dinakar M. Salunke
Former Director
International Centre for Genetic Engineering and Biotechnology, New Delhi

Shri Siba Prasad Mohanty
Chairman and Managing Director
Brahmpuatra Valley Fertilizer Corporation Ltd.
Dibrugarh, Assam

Professor Akhilesh Tyagi
Department of Plant Molecular Biology
South Campus, University of Delhi
New Delhi

Dr. Ram Vishwakarma
Former Director
CSIR-Indian Institute of Integrative Medicine, Jammu

Dr. Subhra Chakraborty
Director
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

Governing Body

Dr. Rajesh S. Gokhale
Secretary
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi
(Chairperson)

Dr. Chandrima Saha
President
Indian National Science Academy
New Delhi

Shri Chaitanya Murti
Joint Secretary (Administration)
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi

Dr. Saroj Kanta Barik
Director
CSIR-National Botanical Research Institute,
Lucknow (UP)

Shri Vishvajit Sahay
Financial Adviser
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi

Dr. K. Gurumurthi
Former Director
Institute of Forest Genetics and Tree Breeding
Coimbatore (TN)

Dr. Subhra Chakraborty
Director
National Institute of Plant Genome Research
New Delhi

Dr. Anil Tripathi
Former Director
CSIR-Central Institute of Medicinal and Aromatic Plants
Lucknow (UP)

Dr. Debasis Chattopadhyay
Scientist - VII
National Institute of Plant Genome Research
New Delhi

Dr. Sundeep Sarin
Scientist 'G'
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi

Dr. Amit P. Parikh
Scientist 'F'
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi

Shri Sandeep Datta
Controller of Administration
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

Finance Committee

Shri Vishwajit Sahay
Additional Secretary &
Financial Adviser
Department of Biotechnology,
Ministry of Science and Technology
Government of India, New Delhi
(Chairperson)

Dr. Subhra Chakraborty
Director,
National Institute of Plant Genome Research
New Delhi

Shri Sandeep Datta
Controller of Administration
National Institute of Plant Genome Research
New Delhi

Dr. Ramesh Venkata Sonti
Executive Director
International Centre for Genetic Engineering and Biotechnology
New Delhi

Ms. Neeru Abrol
Former CMD
National Fertilizers Ltd.
New Delhi

Shri M. Satish Kumar Reddy
Former Commissioner
Central Goods and Services Tax and Customs
Government of India

Dr. Sundeep Sarin
Scientist 'G'
Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi

Shri Rakesh Mohan
Finance Officer
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

Scientific Advisory Committee

Prof. Umesh Varshney
Professor & Chair
Division of Biological Sciences
Indian Institute of Science, Bengaluru

Dr. Chandrima Saha
President
Indian National Science Academy
New Delhi

Dr. Saroj Kanta Barik
Director
CSIR-National Botanical Research Institute,
Lucknow (UP)

Dr. K. Gurumurthi
Former Director
Institute of Forest Genetics and Tree Breeding
Coimbatore (TN)

Dr. Anil Tripathi
Former Director
CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow (UP)

Dr. A. K. Singh
Professor & Head
Genetics Division
ICAR-Indian Agricultural Research Institute
New Delhi

Professor Usha Vijayraghavan
Professor
Microbiology and Cell Biology
Indian Institute of Science, Bengaluru.

Professor Joseph Ecker
Director
Genomic Analysis Laboratory
Salk Institute for Biological Studies
La Jolla, California, USA

Dr. Rajeev Kumar Varshney
Director, State Agricultural Biotechnology Centre
Director, Centre for Crop & Food Innovation
International Chair in Agriculture & Food Security
Food Futures Institute, Murdoch University

Dr. Sundeep Sarin
Scientist 'G'
Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

Dr. Subhra Chakraborty
Director,
National Institute of Plant Genome Research
New Delhi (Member-Secretary)

Academic Committee

Dr. Subhra Chakraborty
Director,
National Institute of Plant Genome Research
New Delhi (Chairperson)

Prof. K. Natarajan
Professor
School of Life Sciences
Jawaharlal Nehru University
New Delhi – 110067
(up to February 21, 2024)

Prof. Rakesh K. Tyagi
Special Centre for Molecular Medicine
Jawaharlal Nehru University
New Delhi – 110067
(up to February 21, 2024)

Prof. Supriya Chakraborty
Professor & Dean
School of Life Sciences
Jawaharlal Nehru University
New Delhi
(From February 22, 2024)

Prof. Nirala Ramchiary
Professor
School of Life Sciences
Jawaharlal Nehru University
New Delhi
(From February 22, 2024)

Dr. Debashish Mohanty
Scientist VII
National Institute of Immunology
New Delhi – 1100 67

Dr. Neel Sarovar Bhavesh
Group Leader
International Centre for Genetic Engineering
and Biotechnology (ICGEB)
New Delhi

Dr. Debasis Chattopadhyay
Scientist
National Institute of Plant Genome Research
New Delhi

Dr. Ashverya Laxmi
Scientist
National Institute of Plant Genome Research
New Delhi

Prof. Satish Chandra Garkoti
Rector-I
Jawaharlal Nehru University
New Delhi
(Special Invitee)

Building Committee

Dr. Dinakar M. Salunke
Former Director
International Centre for Genetic Engineering and
Biotechnology, New Delhi
(Chairman)

Prof. Rakesh Bhatnagar
Former Vice Chancellor
Banaras Hindu University
Varanasi, Uttar Pradesh

Shri Harendra Singh
Executive Engineer
National Institute of Immunology
New Delhi, India

M/s. S. D. Sharma and Associates
Institute's Architect
Panchkula (Haryana)

Consultant Engineer
National Institute of Plant Genome Research
New Delhi

Shri Sandeep Datta
Controller of Administration
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

Institutional Biosafety Committee

Dr. Subhra Chakraborty
Director,
National Institute of Plant Genome Research
New Delhi (Chairperson)

Prof. Subrata Sinha
Professor
All India Institute of Medical Science (AIIMS)
New Delhi

Prof. Alok Bhattacharya
Professor
Ashoka University
Sonipat, Haryana

Prof. M. V. Rajam
Professor
University of Delhi South Campus (UDSC)
New Delhi

Dr. M. K. Reddy
Group Leader
International Centre for Genetic Engineering and
Biotechnology (ICGEB), New Delhi

Dr. Senthil K. Muthappa
Scientist
National Institute of Plant Genome Research
New Delhi

Dr. Senjuti Sinharoy
Scientist
National Institute of Plant Genome Research
New Delhi

Dr. Naveen Chandra Bisht
Scientist
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

Staff of the Institute

Scientific Staff

1 Dr. Subhra Chakraborty, Director
2 Dr. Niranjan Chakraborty, INSA Senior Scientist
3 Prof. Asis Datta, Distinguished Emeritus Scientist
4 Dr. Debasis Chattopadhyay, Scientist VII
5 Dr. Alok Krishna Sinha, Scientist VII
6 Dr. Sabhyata Bhatia, Scientist VII
7 Dr. Manoj Prasad, Scientist VII**
8 Dr. Jitendra Kumar Thakur, Scientist VI*
9 Dr. Manoj Majee, Scientist VI
10 Dr. Gitanjali Yadav, Scientist VI
11 Dr. Ashverya Laxmi, Scientist VI
12 Dr. Naveen Chandra Bisht, Scientist VI
13 Dr. Jagadis Gupta Kapuganti, Scientist VI
14 Dr. Gopaljee Jha, Scientist V
15 Dr. Senthil K. Muthappa, Scientist V
16 Dr. Jitender Giri, Scientist V
17 Dr. Saloni Mathur, Scientist V
18 Dr. Swarup K. Parida, Scientist V
19 Dr. Pinky Agarwal, Scientist V
20 Dr. Jyothilakshmi Vadassery, Scientist V
21 Dr. Aashish Ranjan, Scientist V
22 Dr. Vineet Gaur, Scientist V
23 Dr. Senjuti Sinharoy, Scientist V
24 Dr. Amarpal Singh, Scientist V
25 Dr. Amarjeet Singh, Scientist IV***
26 Dr. Shailesh Kumar, Scientist IV
27 Dr. Ashutosh Pandey, Scientist IV
28 Dr. Hasthi Ram, Scientist IV
29 Dr. Prabhakaran Soundarajan, Scientist III
30 Dr. Pawan Kumar Jewaria, Scientist III
31 Dr. Shiv Kumar Meena, Scientist III
32 Dr. Mukesh Kumar Meena, Scientist II
33 Dr. Vikas Kumar Yadav, Scientist II
34 Dr. Divya Mishra, Scientist II

* Lien terminated on July 14, 2023 and technical resignation accepted.
** on lien w.e.f. October 31, 2023 (A/N).
*** on lien w.e.f. June 22, 2023 (A/N).

Technical Staff

1. Ms Umamaheswari Rajamani, Senior Technical Officer
2. Shri Prem Singh Negi, Senior Technical Officer
3. Shri Sunil Kumar Avasthi, Senior Technical Officer
4. Dr. Santosh Kumar Gupta, Senior Technical Officer
5. Shri Arun Kumar, Senior Technical Officer
6. Dr. Bhavnesh Kumar, Senior Technical Officer
7. Shri Ravi Kant, Senior Technical Officer
8. Shri Shobharam Valmeeki, Senior Technical Officer
9. Shri Jagdeep Singh, Senior Technical Officer
10. Shri Shankar Acharya, Senior Technical Officer
11. Shri Naga Vara Prasad G, Senior Technical Officer
12 Shri Neeraj Nim, Programmer
13. Shri C. Ravi Shankar, Senior Technical Officer
14. Shri Anand Singh Rana, Senior Technical Officer
15. Shri Ashok Kumar, Senior Technical Officer
16. Shri Rajendra, Senior Technical Officer
17. Shri Naveen Kumar Sudda, Senior Technical Officer
18. Shri Dinesh Mehta, Senior Technical Officer
19. Shri Ratneshwar Thakur, Senior Technical Officer
20. Shri Subhasish Mondal, Technical Officer
21. Shri Shailendra Kharwal, Technical Officer
22. Shri Anand Dangi, Technical Officer
23. Shri Achal Prasad, Technical Officer
24. Shri Mohit, Technical Assistant
25. Shri Brihaspati Narayan Shukla, Technical Assistant
26. Shri Arabinda Das, Technician-II*
27. Shri P. K. Mishra, Technician-II
28. Ms Neeta Maurya, Technician-II
29. Ms Sapna Rastogi, Technician-I#
30. Shri Mahender Singh, Technician-II
31. Shri Sagar Ambawata, Technician-II
32. Shri Himanshu Sharma, Multi-Tasking Staff
33. Shri Prakash, Multi-Tasking Staff

* Retired on July 07, 2023 (A/N)

\# Resigned on October 16, 2023 (A/N)

Administrative and Finance Staff

1. Shri Sandeep Datta, Controller of Administration
2. Dr. Vinod Kumar Sharma, Librarian cum Documentation Officer
3. Shri Rajinder Raina, Purchase cum Stores Officer
4. Shri Sudhir Patwal, Administrative Officer
5. Shri Rakesh Mohan, Finance Officer*
6. Shri Manoha Lal Gour, Consultant Engineer
7. Shri Kamal Kumar, PS to Director
8. Ms Vinita Sharma, Section Officer
9. Ms Rajani Aswal, Section Officer
10. Shri Gulsher Ali, Section Officer
11. Ms Sonali, Assistant Section Officer
12. Shri Tapas Shit, Assistant Section Officer
13. Shri Mitesh Raj Bhardwaj, Assistant Section Officer
14. Shri Achint Gupta, Assistant Section Officer
15. Shri Devender Singh Bhandari, Assistant
16. Shri Om Prakash Sah, Junior Hindi Translator
17. Shri Ramesh Singh, Junior Assistant
18. Shri Hari Singh Negi, Junior Assistant
19. Shri Vipin Goyal, Hindi Typist
20. Shri Kuldeep Singh, Driver
21. Shri Bhrigunath Manjhi, Multi-Tasking Staff
22. Shri Manmohan Singh Rawat, Multi-Tasking Staff

*on lien w.e.f. March 13, 2024 (A/N).

Budget/Auditor's Reports & Audited Accounts

BUDGET

The Financial resources of the National Institute of Plant Genome Research are the core grant provided by the Govt. of India, Department of Biotechnology, comprising of Grants for Creation of Capital Assets, Grants-in-Aid Salaries and Grants-in-Aid General.

The Department of Biotechnology in their projections for financial year 2023-2024 have allocated grant of ₹7180.00 lakhs including ₹1825.00 lakhs for infrastructure facilities in respect of NIPGR. The source and application of funds during the financial year 2023-2024 in respect of Institute is as under:

Sources of Funds

The Govt. of India, Department of Biotechnology, released grants of ₹7180.00 lakhs during 2023-2024 as detailed below:

Grants for Creation of Capital Assets	₹1825.00lakhs
Grants-in-Aid Salaries	₹1755.00 lakhs
Grants-in-Aid General	₹3600.00 lakhs

Besides, the Institute has earned, an interest of ₹30,25,326/- on bank deposits of the Institute and miscellaneous receipts including User Charges & Overhead Charges of ₹1,22,76,513/- during the year, apart from the opening balance of ₹69,72,816/-carried forward from previous year.

Application of Funds

(As per Utilization Certificate furnished to the Department of Biotechnology for the year 2023-2024)

The total expenditure on research activities and infrastructure development during the year 2023-2024 was ₹71,01,38,906/- including ₹18,25,15,109/- on infrastructure development.

OVER ALL EXPENDITURE AT A GLANCE

A-Grants for creation of Capital Assets	**Amount in ₹**
1. Equipment	17,65,65,120
2. Furniture & Fixtures	21,40,178
3. Vehicle	-
4. Books/Scientific Journals	38,09,811
Total =	**18,25,15,109**
B-Grants-in-Salaries	
1. Manpower	16,75,66,256
Total =	**16,75,66,256**
C-Grant-in-Aid General	
1. Consumables	7,13,35,714
2. Contingencies (Infrastructure Maintenance)	25,25,65,495
3. Training/Networking/Fellowship	2,63,19,931
4. Campus/Field Development	27,18,577
5. Travel	71,17,824
Total =	**36,00,57,541**
D- Refund of Interest during the year 2023-2024 to DBT through Bharatkosh	**66,31,700**
Closing balance at the end of the year 2023-2024	
Accumulated Internal Receipts	3,53,17,461
Balance against Assignment of Grants- in- Aid	1,48,33,910
Interest to be refunded to DBT	30,25,326
Total	**= 5,31,76,697**

Goyal Parul & Co.
Chartered Accountants

B.O. : 54,Meedo Complex, Near Saharanpur Chowk
DEHRADUN– 248 001, Uttarakhand,
Ph.: 91- **9811324387, 9899612242**
H.O. : # 78, J Extension, 3rd Floor,
Near Guru Ramdass Nagar School
Laxmi Nagar, **DELHI-**110092,
Ph. 011-22451632, Fax: 011- 22057847
E-mail :capgoyal@gmail.com, goyalgoyal_p@rediffmail.com

To,
The Director
National Institute of Plant Genome Research
New Delhi

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of **"NATIONAL INSTITUTE OF PLANT GENOME RESEARCH",** Aruna Asaf Ali Marg,J.N.U Campus, New Delhi-110067which comprises the Balance Sheet as at March 31, 2024, Income& Expenditure A/c, Receipt and Payment A/c for the year ended March 31, 2024, and summary of significant accounting policies and other explanatory information thereon.

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements of the institute give a true and fair view in conformity with the accounting principles generally accepted in India.

Basis of Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs). Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section together with notes and summary of significant accounting polices thereon section of our report. We are independent of the entity in accordance with the Code of Ethics issued by ICAI together with the ethical requirement that is relevant to our audit of Financial Statement, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the code of ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the financial statements.

Responsibilities of Management & Those Charged with Governance for the Financial Statement together with notes and summary of significant accounting policies thereon.

The Management is responsible for the preparation of these financial statement together with notes and summary of significant accounting policies that give true & fair view of financial position & financial performance of the institute in accordance with accounting standard issued by institute of chartered accountant of India & for such internal control as management determines is necessary to enable the preparation of financial statement together with notes and summary of significant accounting policies thereon that are free from material misstatement, whether due to fraud or error.

In preparing the financial statement together with notes & summary of Significant Accounting policies thereon, Management is responsible for assessing the entity`s ability to continue as going concern, disclosing, as applicable, matter related to going concern and using the going concern basis of accounting unless management either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Those Charge with Governance are responsible for overseeing the entity`s financial reporting process.

GOYAL PARUL & CO. FRN 016760N Chartered Accountants

Auditor's Responsibilities for the Audit of the Financial Statements together with notes and summary of significant accounting policies

Our objectives are to obtain reasonable assurance about whether thefinancial Statements together with notes and summary of significant accounting policies as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements together with notes and summary of significant accounting policies.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

• Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

• Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Institute internal control.

• Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

• Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on other matters:

1. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
2. In our opinion proper books of accounts as required by law have been kept by the Institute so far as it appears from our examination of those books except the possible effects of qualified opinion;
3. The Financial statement give information required by governing law/rules /regulation in the manner so required and give fair view in conformity with the accounting policies.
    a) In case of Balance Sheet, of the financial position as at 31st March 2024
    b) In case of income & Expenditure account, of income & expenditure incurred during the year ended.
    c) In case of Receipt & Payment Accounts for the year ended on that date.

GOYAL PARUL & CO. Chartered Accountants FRN 016750N

4. The Balance Sheet, the Statement of Income & Expenditure and the Statement of receipt & Payment dealt with by his report are in the agreement with the books of accounts.
5. The Institute has, substantially and in all material respects, compiled with governing laws/rules/regulation while carrying its operations.

This Report is intended solely for the information of operating committee members only. This report is not to be used, referred to, or distributed for any other purpose without our prior written consent.

For Goyal Parul & Co.
Chartered Accountants
Firm Reg. No. – 016750N

CA Parul Goyal
(Partner) / Membership No. - 099172
UDIN: 24099172BKBKBA8106

Place: New Delhi
Date: 24/8/2024

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

LIABILITIES	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	1,23,92,56,765	1,34,32,34,314
Reserves and Surplus	2	(7,01,72,081)	(7,37,13,170)
Earmarked/Endowment Funds	3	11,27,83,599	11,40,23,933
Secured Loans and Borrowings	4	-	-
Unsecured Loans and Borrowings	5	-	-
Deferred Credit Liabilities	6	-	-
Current Liabilities and Provisions	7	18,87,42,799	24,36,56,577
TOTAL		**1,47,06,11,082**	**1,62,72,01,654**
ASSETS			
Fixed Assets			
Tangible Assets	8	1,20,46,83,760	1,29,07,99,770
Intangible Assets	8	95,70,302	1,05,41,530
Investments-From Earmarked/Endowment Funds	9	10,36,30,226	10,07,52,496
Investments- Others	10	-	-
Current Assets, Loans, Advances etc.	11	15,27,26,794	22,51,07,858
Miscellaneous Expenditure (to the extent not written off or adjusted)		-	-
TOTAL		**1,47,06,11,082**	**1,62,72,01,654**
Significant Accounting Policies and notes on accounts	24		
Contingent Liabilities	-	-	-

Schedules 1 to 24 form the Integral part of Accounts

AS PER OUR SEPARATE REPORT OF EVEN DATE ATTACHED.
For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

UDIN: 24099172BKBKBA8104
Dt 24/8/2024

PLACE: NEW DELHI
DATE: August 24, 2024

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
INCOME & EXPENDITURE FOR THE YEAR ENDED 31st MARCH 2024

AMOUNT IN ₹

INCOME	Schedule	Current Year	Previous Year
Income from Sales/ Services	12	-	-
Grants / Subsidies (Recurring)	13	53,55,00,000	48,50,00,000
Fees/ Subscriptions	14	-	-
Income from Investments (Income on Investment from Earmarked/ Endowment Fund)	15	49,07,717	98,94,495
Income from Royalty, Publication etc.	16	-	-
Interest Earned	17	36,21,264	1,14,65,496
Other Income	18	1,24,31,269	1,14,63,876
Deferred Income- Fixed Assets	18	12,22,24,336	9,39,07,875
Increase / (decrease) in stock of Finished goods and works-in-progress	19	-	-
TOTAL (A)		**67,86,84,586**	**61,17,31,742**
EXPENDITURE			
Income from Investments (Income on Investment from Earmarked Fund)	15	49,07,717	98,94,495
Endowment Fund transferred to NIPGR Fund A/c			
Interest earned transferred to respective Project/ Current Liabilities	17	32,94,772	1,12,24,693
Establishment Expenses	20	18,14,41,812	15,90,67,160
Other Administrative Expenses etc.	21	36,26,60,972	33,34,76,134
Prior Period Expenses	21	-	43,95,049
Expenditure on Grants, Subsidies etc.	22	-	-
Interest	23	-	-
Depreciation (Net Total at the year-end - corresponding to Schedule-8)		12,22,24,336	9,39,07,875
TOTAL (B)		**67,45,29,609**	**61,19,65,406**
Balance being excess of Income over Expenditure (A - B)		41,54,977	-
Balance being excess of Expenditure over Income (B - A)		-	2,33,664
Transfer to Special Reserve (Specify each)		-	-
Transfer to / from General Reserve		-	-
BALANCE BEING DEFICIT/ SURPLUS CARRIED TO RESERVES/ SURPLUS		**41,54,977**	**2,33,664**
Significant Accounting Policies and notes on accounts	24	-	-
Contingent Liabilities		-	-

Schedules 1 to 24 form the Integral part of Accounts

AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.
For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

Vineeta
(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

Subhra Chakraborty
(DR. SUBHRA CHAKRABORTY)
DIRECTOR

PARTNER
Membership No.099172

PLACE: NEW DELHI
DATE: August 24, 2024

UDIN: 24099172BKBKBA8I

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 1 CORPUS /CAPITAL FUND	Current Year		Previous Year	
Grants in Aid Non recurring				
Balance as at the beginning of the year	85,45,90,533		58,95,88,109	
Add: Contributions received during the year	18,25,00,000		36,00,00,000	
Less: Grants lapsed to Government	-		-	
Less : Reduced during the year	12,27,58,455		9,49,97,576	
		91,43,32,078		85,45,90,533
Fixed Assets Fund				
Balance as at the beginning of the year	48,75,87,821		65,22,17,234	
Add: Contributions received during the year	2,39,51,023		1,91,19,645	
Less: Contribution refunded/lapsed during the year	1,66,42,039		23,10,183	
Add : Value of Project Equipment transferred back	-		-	
Less:Reduced during the year	17,10,28,078		18,14,38,875	
		32,38,68,727		48,75,87,821
Research Fund				
Balance as at the beginning of the year	8,62,696		8,62,696	
Add: Contributions received during the year	-		-	
		8,62,696		8,62,696
Students & Staff Welfare Fund				
Balance as at the beginning of the year	1,93,264		1,93,264	
Add: Contributions received during the year	-		-	
		1,93,264		1,93,264
BALANCE AS AT THE YEAR- END		**1,23,92,56,765**		**1,34,32,34,314**

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 2- RESERVES AND SURPLUS:	Current Year		Previous Year	
1.Capital Reserve:				
As per last Account	-		-	
Addition during the year	-		-	
Less: Deduction during the year	-		-	
		-		-
2.Revaluation Reserve:				
As per last Account	-		-	
Addition during the year	-		-	
Less: Deduction during the year	-		-	
		-		-
3.Special Reserves: 11 ISRFG FUND				
As per last Account	-		6,13,888	
Addition during the year	-		-	
Less: Deduction during the year	-		-	
		-		6,13,888
4. General Reserve:				
As per last Account	(7,43,27,058)		(7,40,93,394)	
Addition during the year	41,54,977		-	
Less: Deduction during the year	-		2,33,664	
Less: Short & Excess	-		-	
		(7,01,72,081)		(7,43,27,058)
TOTAL		**(7,01,72,081)**		**(7,37,13,170)**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 3	Current Year		Previous Year	
Fund Debt Employees Provident Fund				
a) Opening balance of the fund	11,40,23,933		9,87,64,655	
b) Additions to the fund				
i) Donations/grant	-		-	
ii) Income from Investments/Savings Account	49,07,717		98,94,495	
iii) Regular Subscription/Refund of Advance received	67,46,000		70,62,000	
iv) Receipt towards Management share & Interest (Deficit only)	46,20,696		6,41,182	
Total (a+b)		13,02,98,346		11,63,62,332
c)Utilization/Expenditure towards objectives of fund	-		-	
i. Capital Expenditure				
* Fixed Assets	-		-	
* Others	-		-	
ii Revenue Expenditure				
Advance payment to Subscribers	-		-	
Part final withdrawal	70,00,000		6,00,000	
Final payment to Subscribers	1,05,14,747		17,38,399	
Total (c)		1,75,14,747		23,38,399
TOTAL (a+b-c) (Annexure-101)		**11,27,83,599**		**11,40,23,933**

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AMOUNT IN ₹

SCHEDULE 4- SECURED LOANS AND BORROWINGS:	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specifty)	-		-	
3. Financial Institutions				
a) Term Loans	-		-	
b) Interest accrued and due	-		-	
4. Banks:				
a) Term Loans	-		-	
-Interest accrued and due	-		-	
b) Other Loans (Specify)	-		-	
-Interest accrued and due	-		-	
5. Other Institutions and Agencies	-		-	
6 Debentures and Bonds	-		-	
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 5- UNSECURED LOANS AND BORROWINGS	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specifty)	-		-	
3. Financial Institutions	-		-	
4. Banks:				
a) Terms Loans	-		-	
b) Other Loans (Specify)	-		-	
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-		-	
7. Fixed Deposits	-		-	
8. Others (Specify)	-		-	
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE-6 DEFERRED CREDIT LIABILITIES	Current Year		Previous Year	
a. Acceptances secured by hypothecation of capital equipment and other assets	-	-	-	-
b.Others	-	-	-	-
		-		-
TOTAL		-		-

For GOYAL PARUL & Co.
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AMOUNT IN ₹

SCHEDULE 7- CURRENT LAIBILITIES AND PROVISIONS	Current Year		Previous Year	
A. CURRENT LIABILITIES				
1. Acceptances	-	-	-	
2. Sundry Creditors				
a) For Goods	-		-	
b) Others	-	-	-	-
3. Advances Received				
(i) Security deposits from contractors	1,28,04,176		1,32,71,633	
Add: Variations during the year	6,96,962			
Less: Variations during the year	-		4,67,457	
		1,35,01,138		1,28,04,176
(ii) Earnest Money deposit	-		-	
Add: Variations during the year	-		-	
Less: Variations during the year	-		-	
		-		-
(iii) Hostel Security from Students	2,48,500		3,15,000	
Add: Variations during the year	-		-	
Less: Variations during the year	8,000		66,500	
		2,40,500		2,48,500
4.Projects Grants/Fellowships				
(i) CSIR	1,87,672		3,223	
(ii) DBT	2,24,78,989		6,36,00,037	
(iii) DST/ SERB	2,04,54,641		97,58,692	
(iv) INSA/ ICAR/EMBO/INYAS/IGNITE/DRDO	24,43,617		26,64,662	
(v) FELLOWSHIPS	17,88,044		32,08,213	
(vi) PSI & AOAPO Conference	19,62,607		-	
(vii) SWATI PORTAL	3,17,520		-	
(Annexure-1 to 105)				7,92,34,827
Less; Provisions 4,38,80,379		57,52,711		
5.Interest accured but not due on :				
(a) Secured Loans /borrowings	-		-	
(b) Unsecured Loans/borrowings	-		-	
		-		-
6.Statutory Liabilities				
a) GSTDS / TDS	69,47,848		16,14,385	
b) Others(NPS)	-		-	
		69,47,848		16,14,385
7.Other Current Liabilities:				
Audit fees payable	47,200		47,200	
Outstanding Expenses payable	3,11,07,809		2,88,26,085	
		3,11,55,009		2,88,73,285
8. Miscellaneous Liabilities:	3,58,531	3,58,531	2,10,528	2,10,528
9. Interest refundable to DBT	30,25,327	30,25,327	66,31,701	66,31,701
TOTAL (A)		**6,09,81,064**		**12,96,17,402**
B. PROVISIONS				
1.For Taxation	-		-	
2.Gratuity	5,54,18,390		5,02,60,840	
3.Superannuation/Pension	-		-	
4.Accumulated Leave Encashment	7,23,43,345		6,37,78,335	
5.Others (Specify)	-		-	
		12,77,61,735		11,40,39,175
TOTAL (B)		12,77,61,735		11,40,39,175
TOTAL (A+B)		**18,87,42,799**		**24,36,56,577**

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st March 2024

SCHEDULE 8- FIXED ASSETS

AMOUNT IN ₹

ASSETS	RATE	W.D.V.As on 01.04.2023	Additions/Sales			Total As on 31.03.2024 Rs	Depreciation for the year Rs	W.D.V. As on 31.03.24
			Upto 30.09.2023	On or After 01.10.2023	Sales/Adjustments			
1.Land								
a) Free Hold	0%	4,32,00,000	-	-	-	4,32,00,000		4,32,00,000
b) Lease hold			-	-	-	-	-	
2.(A) Building							-	
a) On Freehold Land	10%	23,71,49,000	-	-	-	23,71,49,000	2,37,14,900	21,34,34,100
b) On Leasehold Land			-	-	-	-	-	
c) Ownership flats/premises	10%		-	-	-	-	-	
d) Superstructures on Land not belonging to the entity	10%	2,81,624	-	-	-	2,81,624	28,162	2,53,462
2.(B) Building (Projects)	10%	1,65,52,686	-	-	-	1,65,52,686	16,55,269	1,48,97,417
3. Plant Machinary & Equipment								
a) Lab Equipments(Core)	40%	3,74,74,598	32,83,812	6,08,77,679	-	10,16,36,089	2,84,78,900	7,31,57,189
b) Lab Equipment (Project)	40%	36,09,06,792	5,04,33,137	2,41,84,186	-	43,55,24,115	16,93,72,809	26,61,51,306
4. Vehicles	15%	21,78,592		-	-	21,78,592	3,26,789	18,51,803
5. Furniture & Fixtures	10%	2,16,08,571	3,40,713	17,99,465	-	2,37,48,749	22,84,902	2,14,63,847
6. Office Equipments	15%	2,49,66,291	3,63,684	3,81,80,681	5,34,119	6,29,76,537	65,82,929	5,63,93,608
7. Computer / Peripherals	40%	12,79,74,336	1,26,37,285	37,67,979	-	14,43,79,600	5,69,98,244	8,73,81,356
8. Books & Scientific Journals	40%	11,25,192	5,23,649	13,84,271	-	30,33,112	9,36,391	20,96,721
9. E-Journals	25%	1,05,41,530	-	19,01,891	-	1,24,43,421	28,73,119	95,70,302
Total of Current Year		**88,39,59,212**	**6,75,82,280**	**13,20,96,152**	**5,34,119**	**1,08,31,03,525**	**29,32,52,414**	**78,98,51,111**
Capital work in Progress		**36,69,48,951**	-	**5,74,54,000**	-	42,44,02,951	-	42,44,02,951
CWIP Equipments (Projects)		5,04,33,137	-	-	5,04,33,137	-	-	-
Grand Total		**1,30,13,41,300**	**6,75,82,280**	**18,95,50,152**	**5,09,67,256**	**1,50,75,06,476**	**29,32,52,414**	**1,21,42,54,062**

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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE -9 INVESTMENTS FROM FUND DEBT EMPLOYEES PROVIDENT FUND	Current Year		Previous Year	
1. In Government Securities	-		-	
2.Other approved Securities	-		-	
3. Shares	-		-	
4. Debentures and Bonds	-		-	
5. Subsidiaries and Joint Ventures	-		-	
6.Others-Financial Institutions	10,36,30,226		10,07,52,496	
		10,36,30,226		10,07,52,496
TOTAL		**10,36,30,226**		**10,07,52,496**

AMOUNT IN ₹

SCHEDULE 10 - INVESTMENTS - OTHERS	Current Year		Previous Year	
1. In Government Securities	-		-	
2. Other approved Securities	-		-	
3. Shares	-		-	
4. Debentures and Bonds	-		-	
5. Subsidiaries and Joint Ventures	-		-	
6. Others	-		-	
		-		-
TOTAL		-		-

(VINEETA SHARMA)
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE -11 CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
A. CURRENT ASSETS:				
1. Inventories:				
a) Stores and Spares	-		-	
b) Loose Tools	-		-	
c) Stock-in- trade				
Finished Goods	-		-	
Work-in-progress	-		-	
Consumables	25,41,250		35,15,006	
		25,41,250		35,15,006
2. Sundry Debtors				
a) Debts Outstanding for a period exceeding six months	-		-	
b) Others	-		-	
		-		-
3. Cash balance in hand				
(including cheques/drafts and imprest)	-		-	
		-		-
4. Bank Balances:				
a) With Schedules Banks:				
-On Current Accounts	-		-	
-On Deposit Accounts (includes margin money)	76,38,225		71,40,171	
-On SBI Savings Account	10,94,86,070		8,80,90,657	
-NIPGR CPF Account	70,27,872		1,18,63,340	
- NIPGR Account	5,407		13,75,239	
- NIPGR HDFC Savings Account	5,23,303		21,04,440	
- NIPGR-NCS-TCP Savings Account	1,47,80,356		1,12,72,342	
NIPGR BRD Scheme- ICICI ZBSA	-		9,04,12,728	
NIPGR DST Scheme- Bank of Maharashtra ZBSA	-		22,73,713	
NIPGR IPAFNH-PSI	28,76,010			
		14,23,37,243		21,45,32,630
b) With non- Scheduled Banks:				
-On Current Accounts	-		-	
-On Deposit Accounts	-		-	
-On Savings Accounts	-		-	
		-		-
5. Post Office- Savings Accounts	-		-	
		-		-
TOTAL (A)		**14,48,78,493**		**21,80,47,636**

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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE- 11 CURRENT ASSETS, LOANS, ADVANCES ETC.	Current Year		Previous Year	
B. LOANS,ADVANCES AND OTHER ASSETS:				
1. Loans:				
a)Staff		-		-
b)To other Entities engaged in activities/objectives similar to that of the entitiy		-		-
2. Advances and other amounts recoverable in cash or in kind for value to be received				
a) On Capital Account (Equipment Adv.)	-		-	
b) On Capital Account (Equipment Adv.projects)	-		-	
c) Contingencies Advance	35,281		7,396	
d) Consumable Advance	-		18,880	
e) Advance for assets	-		-	
f) Security				
(i) Delhi Vidyut Board	24,000		24,000	
ii) Reliance Inds Ltd.	26,000		26,000	
iii) BSES (consumption deposit)	35,46,000		29,43,000	
iv) VSNL (Internet Lease)	70,000		70,000	
(v) Relience Comm.Infrast.Ltd.(Telephone)	2,000		2,000	
vi) Queens Road Sevice Station	50,000		50,000	
vii) Tata Communications Ltd	94,688		94,688	
viii) Indraprastha Gas Ltd (PNG Connection)	4,52,102		4,52,102	
ix) M/s Balmer Lawrie & Company(Rolling Deposit)	5,00,000		5,00,000	
		48,00,071		41,88,066
3. Income Accrued:				
a) On Investments from Earmarked/Endowment Funds	-		-	
b) On Investments - Others	-		-	
c) On Loans and Advances	-		-	
d) Others -(M/s RITES Ltd)	7,43,260		7,43,260	
e) BSES	2,42,226		1,85,409	
(includes income due unrealised - ₹Nil)				
		9,85,486		9,28,669
4. Claims Receivable				
a) Refund from Income Tax	17,50,636		18,13,429	
b) Other Receivables	2,87,446	20,38,082	1,05,379	19,18,808
5. Prepaid Expenses	24,662		24,680	
		24,662		24,680
TOTAL (B)		**78,48,301**		**70,60,223**
TOTAL (A +B)		**15,27,26,794**		**22,51,07,858**

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AMOUNT IN ₹

SCHEDULE- 12 INCOME FROM SALES/SERVICES	Current Year		Previous Year	
1. Income from Sales				
a) Sales of Finished Goods	-		-	
b) Sales of Raw Material	-		-	
		-		-
2.Income from Services				
a) Labour and Processing Charges	-		-	
b) Professional/Consultancy Services	-		-	
c) Agency Commission and Brokerage	-		-	
d) Maintenance Services (Equip./Property)	-		-	
e) Others (Specify)	-		-	
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE -13 GRANTS/SUBSIDIES	Current Year		Previous Year	
(Irrevocable Grants & Subsidies Received)				
a) Central Government **53,55,00,000**				
Less :Lapsed to Government -	53,55,00,000		48,50,00,000	
b) State Government(s)	-		-	
c) Government Agencies	-		-	
d) Institutions/Welfare Bodies	-		-	
e) International Organisation	-		-	
f) Others (Specify)	-		-	
		53,55,00,000		48,50,00,000
TOTAL		**53,55,00,000**		**48,50,00,000**

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AMOUNT IN ₹

SCHEDULE 14 - FEES/SUBSCRIPTIONS	Current Year		Previous Year	
a) Entrance Fees	-		-	
b) Annual Fees/Subscriptions	-		-	
c) Seminar/Programme Fees	-		-	
d) Consultancy Fees	-		-	
e) Others (Specify)	-		-	
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 15- INCOME FROM INVESTMENTS	Current Year		Previous Year	
(Income on Invest. from Earmarked/Endow. Funds transferred to Funds)				
1) Interest				
a) On Govt. Securitites	-		-	
b) Other Bonds/Debentures/Term Deposits	49,07,717	49,07,717	98,94,495	98,94,495
2) Dividends				-
a) On Shares	-		-	
b) On Mutual Fund Securities			-	
3) Rents	-	-	-	-
4) Other (Specify)	-	-	-	-
		-		-
TOTAL		49,07,717		98,94,495
TRANSFERRED TO EARMARKED/ENDOWMENT FUND		49,07,717		98,94,495

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AMOUNT IN ₹

SCHEDULE 16 INCOME FROM ROYALTY, PUBLICATION ETC.	Current Year		Previous Year	
1) Income form Royalty	-		-	-
2) Income form Publications	-		-	-
3) Service Charges	-		-	-
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 17 INTEREST EARNED	Current Year		Previous Year	
1) On Term Deposits:				
a) With Scheduled Banks	11,28,667		91,98,844	
b) With Non- Scheduled Banks	-		-	
c) With Instituitons	-		-	
d) Others-(M/s.RITES Ltd.)	-		-	
		11,28,667		91,98,844
2) On Savings Accounts:				
a) With Scheduled Banks	21,66,105		20,25,849	
b) With Non- Scheduled Banks	-		-	
c) Post Office Savings Accounts	-		-	
d) Others	-	21,66,105	-	20,25,849
3) On Loans:				
a) Employees/Staff	-		-	
b) Others	-		-	
		-		-
4) Interest on Security Deposit/ Receivables				
a) BSES	2,69,140		2,06,010	
b) Refund from Income Tax	57,352	3,26,492	34,793	2,40,803
TOTAL		**36,21,264**		**1,14,65,496**
Interest transferred to respective project	2,69,446	**2,69,446**	45,92,993	45,92,993
Interest refundable to DBT trf to Current Liabilities	30,25,326	**30,25,326**	66,31,700	66,31,700
Note - Tax Deducted at source to be indicated				

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 18 - OTHER INCOME	Current Year		Previous Year	
1) Profit on Sale/disposal of Assets:				
a) Owned assets	-		-	
b) Assets acquired out of grants or recd. free of cost	-		-	
2) Export Incentives realised	-		-	
3) Other Income				
a. Licence fee from Staff Quarters/Canteen	4,37,374		3,81,126	
b. Guest House Charges/ Rent received for Other facilities	6,96,205		8,04,798	
c. Hostel fee/Rent recovery/Admission/Application Fee	8,84,667		9,20,680	
d. Miscellenous Income(RTI charges, Medical Subscription received from Retired employees, Prior Pried Income towards collection on disposal of condemned assets)	5,60,510		11,25,478	
e. Sample Analysis Charges	64,25,540		57,47,640	
f. Overhead Charges				
i) Funding Agencies	34,26,973		23,32,154	
ii) From DBT	-		1,52,000	
4) Deferred Income - Fixed Assets	12,22,24,336		9,39,07,875	
		13,46,55,605		10,53,71,751
TOTAL		**13,46,55,605**		**10,53,71,751**

AMOUNT IN ₹

SCHEDULE 19 - INCREASE/(DECREASE) IN STOCK OF FINISHED GOODS & WORK IN PROGRESS	Current Year		Previous Year	
a) Closing Stock:				
- Finished Goods	-		-	
- Work-in-progress	-		-	
		-		-
b) Less. Opening Stock				
- Finished Goods	-		-	
- Work-in-progress	-		-	
		-		-
NET INCREASE/(DECREASE) [a-b]		-		-

AMOUNT IN ₹

SCHEDULE 20 ESTABLISHMENT EXPENSES	Current Year		Previous Year	
a) Salaries and Wages	15,01,87,037		14,47,00,859	
b) Allowances and Bonus	-		-	
c) Contribution to Provident Fund	46,20,696		6,41,182	
d) Contribution to Other Fund (Specify)	-		-	
e) Staff Welfare Expenses	-		-	
f) Expen.on Empl. Retirement and Terminal Benefits	2,66,34,079		1,37,25,119	
g) Others (Specify)	-		-	
		18,14,41,812		15,90,67,160
TOTAL		**18,14,41,812**		**15,90,67,160**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.	Current Year		Previous Year	
1 Consumables				
a. Chemicals ,Glasswares & Consumables	7,07,23,364		7,78,70,037	
b. Other Lab Items	-	7,07,23,364	-	7,78,70,037
2 Contingencies				
a. Publication of Papers	30,87,379		38,06,689	
b. Electricity and water charges	10,04,55,321		9,45,16,812	
c. Seminar,Conference & Workshops	20,35,787		18,19,425	
d. Maintenance of Equipment	5,41,03,483		2,78,61,323	
e. Generator Running Expenses	4,10,252		5,44,770	
f. Maintenance of AC Plant	84,64,082		1,45,05,835	
g. Maintenance of Building	81,10,454		67,62,432	
h. Housekeeping, Sanitation Services	83,48,521		79,75,813	
i. Vehicles Running and Maintenance				
i) Petrol ,Oil & Lubricants	6,80,584		6,04,521	
ii) Maintenance	1,74,194		1,99,056	
j. Postage, Telephone and Comm. Charges				
i) Postage	21,705		18,947	
ii) Telephone & Fax	7,57,358		3,64,437	
k. Printing and Stationary	17,10,140		15,57,529	
l. Security expenses	2,14,97,707		1,69,29,866	
m. Auditors Fees	47,200		47,200	
n. Committee Meeting Expenses	31,62,630		19,35,944	
o. Legal fees	7,26,303		3,60,382	
p. Journals and periodicals	3,34,574		3,32,800	
q. Advertisement and Publicity	66,670		78,060	
r. Miscellaneous Contingencies	2,24,481		4,43,511	
s. Contractual Manpower Services	3,37,32,393		2,17,84,445	
t. Rates &Taxes	45,10,162		42,03,810	
u. IPR/ Patent Filing Charges	18,70,109		41,92,015	
v. Extra Curricular Activities for Students	8,48,578		1,69,495	
w. NCR Cluster Expenses	-		81,387	
x. Prior Period Expenses	-		43,95,049	
y. Science Outreach Activities	-	25,53,80,067	40,06,963	21,94,98,516
3 Campus/Field Development	70,22,842	70,22,842	83,17,308	83,17,308
4a. Training affiliation and Others	56,01,943		28,53,831	
4b. NIPGR Fellowship	2,13,52,304	2,69,54,247	2,30,83,302	2,59,37,133
5 Travelling and Conveyance Expenses				
i) Travelling	25,04,558		61,77,771	
ii) Conveyance & Transport	75,894	25,80,452	70,418	62,48,189
TOTAL		**36,26,60,972**		**33,78,71,183**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2024

AMOUNT IN ₹

SCHEDULE 22 EXPENDITURE ON GRANTS,SUBSIDIES ETC.	Current Year		Previous Year	
a) Grants given to Institutions/ Organisations	-		-	
b) Subsidies given to Institutions / Organisations	-		-	
		-		-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 23 - INTEREST	Current Year		Previous Year	
a) On Fixed Loans	-		-	
b) On Other Loans (including Bank Charges)	-		-	
c) Others(specify)	-		-	
		-		-
TOTAL		-		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

Schedule- 24

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

ACCOUNTING POLICIES AND NOTES FORMING PARTS OF THE BALANCE SHEET AS AT AND INCOME& EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31st MARCH, 2024

1. The annual accounts have been prepared in the format of accrual system of accounting, except for Interest Income, Extramural Funds and Contributory Provident Fund, which are accounted for on cash basis.

2. (a) Recurring Grants have been recognised in the Income & Expenditure account and Non-Recurring Grants have been shown as addition to grants in aid in the year of receipts.

   (b)Grants for core funds relatable to depreciable fixed assets are treated as deferred income and recognised in the Income and Expenditure Account on a systematic and rational basis over the useful life of such assets i.e. such grants are allocated to income over the periods and in the proportions in which depreciation is charged and same are matching for the year. During the year income recognised in respect of such Grants amounts to ₹12,22,24,336/-.

3. (a) The depreciation has been provided w.e.f. the date of purchase of fixed assests as per the rates prescribed by Income Tax Rules, 1961. The depreciation on lab equipment has been charged at 40% p.a at par with depreciation rates prescribed for medical equipments under section 32(1)(i) and Appendix I under Rule 5(1). The rate of deprication in respect of Computers & Pheriphirals and Books & Journlas has been revised to 40% as per the notification No.103/2016/F.No.370142/29/2016-TPL dated November 7,2017.

   (b) Full depreciation is charged during the year of acquisition in case the assets is aquired in the first half and 50% of rate of depreciation for assets acquired during the second half of the financial year.No depreciation is provided during the year of disposal of assets.

   (c) Depreciation of ₹17,10,28,078/- has been provided during the year and directly debited to fixed assets fund.These assets were created out of the Non-Recurring Grants of the projects.

4. (a) Fixed assets have been created with grants received from the Department of Bio-Technology. The condition of these grants, inter alia, stipulates that assets will be the property of Government, who will be free to sell or otherwise dispose off the same.The Govt. of India has the discretion to gift the assets to the Institute if it considers appropriate, but no such gifts have been made so far.Therefore, in effect the ownership of the assets lies with Govt. of India and not with the Institute.

   (b) Excersice towards physical verification of fixed assets and its reconciliation with the financial records was completed upto the financial year 2023-24.

5. All purchases of chemicals, glass-ware, consumables and stationery have been charged to consumption at the time of purchase. However at the end of the accounting year the value of the quantities in stock is reflected as Closing Inventory.The closing stock has been worked out on cost basis and shown in the respective schedule.The closing stock of these items amounting to ₹25,41,250/- was available at the end of the year.

6. (a) Construction Cost and Overheads incidental to construction of buildings of Institute including 'Works Deposit' released to CPWD are added to the 'Capital Work in Progress' to be capitalized along with the building.

   (b) The cost of phase –II of the building of the Institute has been capitalized during previous financial year 2018-19, after vetting of final cost by the Building Committee and approval by the Governing Body as per Institutional norms.

GOYAL PARUL & CO. Chartered Accountants FRN 016716N

7. The Institute has a policy of allocating the overheads and transfer of expenditure from Institute to different projects at the end of year on proportionate basis after taking into account the amount of maximum permissible limits for overheads sanctioned by the funding agency in each project. During the year institute has allocated ₹34,26,973/- as overheads from different agencies.

8. The Institute has made a provision of ₹2,66,34,079/- during current financial year 2023-24 towards the terminal benefits payable to staff, as per Actuarial Valuation. The total accumulated value of provisions towards terminal benefits payable as on 31.03.2024 is ₹12,77,61,735/-.

9. Interest earned on deposits with the banks is treated as income as per instructions contained in Uniform Format of accounts for Autonomous Bodies. However, as per provisions contained in GFR 230 (8) Interest earned on Government Grants is required to be remmitted to the Consolidated Fund of India after finalization of accounts. Accordingly, interest on Savings bank account/ Term deposits earned during financial year 2022-23, amounting to ₹66,31,700/- in respect of Grants in Aid has been remitted to DBT during the financial year 2023-2024.

10. As per approval of the competent authority a reserve fund with name 11th ISRFG Fund has been created and to be used for the purposes specified in this regard.

11. The Institute has been designated as CNA under IED Scheme by DBT merely for assigning limits to Sub-agencies under said scheme. The Institute has no say over funds allocated under the scheme by DBT.

12. The Institute hereby make following disclosures :

(a) An Arbitration Case was filed by M/s Arora Construction Co. Pvt. Ltd (a Contractor engaged by M/s RITES Ltd, Construction Management Consultants of NIPGR for construction of NIPGR buildings) and the Arbitrator has awarded an amount of ₹4.873 Crore alongwith Interest @12% p.a. in favour of M/s Arora Constructions Co. Pvt. Ltd.. M/s RITES Ltd, on behalf of the Institute has filed appeal in Hon'ble High Court against the Award and Hon'ble High Court has stayed the order of the Arbitrator. The Institute has deposited an amount of ₹.2.10 Crore with the Hon'ble High Court as per Orders, through M/s RITES Ltd. Now the court proceedings are in process.

(b) The Jawaharlal Nehru University has raised demand of monthly rent of ₹62.30 lakhs towards the land allotted to the Institute. The matter has been deliberated by the Finance Committe and Governing Body of the Institute in light of Agreement executed between JNU and NIPGR in this regard, dated 17.06.1999, and resolved that the demand raised by JNU is not justified and this amount is not payable by the Institute.

(c) In the initial stages some structures have been erected by the Institute on the land belonging to JNU, for the establishment of the Institute. The same has been reflected in Schedula-8,2(A)d. As on March 31,2024, its Written Done Value is ₹2,53,462/-.

13. Previous year figures have been re-grouped/re-arranged wherever considered necessary.

For Goyal Parul & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

Place: New Delhi
Date: August , 2024

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2024

AMOUNT IN ₹

RECEIPTS Particulars	Current Year		Previous Year	
Opening Balance				
In Saving Account/Short Term deposits	20,26,69,290		47,27,81,062	
Reserve & Surplus			-	
Grants Received from Deptt of Biotechnology				
Non recurring	18,25,00,000		36,00,00,000	
Recurring	53,55,00,000		48,50,00,000	
Projects & Fellowships				
Sponsored Projects (Including all receipts, Re-assignments/ Assignments & recoverable amounts)	38,67,61,853		20,79,17,107	
	-		32,55,84,637	
Sponsored Fellowship	1,36,82,263		1,39,99,130	
Interest Earned	32,94,272		1,12,24,693	
Security Deposit from Contractors	65,50,293		51,91,368	
New pension Scheme	-		1,48,480	
GSTDS received/recovered/GST Payable	1,97,04,475		1,04,59,302	
Remittances	9,72,417		5,80,976	
Other Liabilitites	7,199		17,700	
Refund of Consumable advance	-		-	
Refund of Equipment advance	-		-	
Refund of Contingency advance	42,812		2,45,392	
Receivables from Income Tax	10,50,360		4,98,700	
Hostel/Mess Security	25,000		33,000	
Other Income	80,20,620		57,54,937	
TOTAL		**1,36,07,87,883**		**1,89,94,36,484**

AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.
For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

PLACE: NEW DELHI
DATE: August , 2024

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2024

AMOUNT IN ₹

PAYMENTS Particulars	Current Year	Previous Year
Grants under TSA lapsed to Government		
Non recurring	-	-
Recurring	-	-
Remittance of Refund of Tax to NIPGR C P Fund	-	4,03,044
Building under Construction (WIP)	-	17,04,17,735
Lab Equipment	6,41,61,491	2,66,77,030
Office Equipment	9,59,98,365	45,45,103
Computer/Peripherals	1,64,05,264	15,34,06,843
Furniture & Fixture	21,40,178	13,29,135
Books & Scientific Journals/ E-Journals	38,09,811	36,24,154
Vehicle	-	-
Manpower		
Salaries and Wages	16,29,45,560	14,36,59,294
Contribution to Provident fund	46,20,696	6,41,182
Consumables		
a) Chemicals ,Glasswares & Consumables	7,07,76,204	7,63,02,364
b) Other Lab Items	-	-
Contingencies		
a) Publication of Papers	31,18,927	48,68,835
b) Electricity and water charges	10,05,17,331	9,68,56,398
c) Seminar,Conference & Workshops	20,27,787	19,12,230
d) Maintenance of Equipment	5,39,35,213	2,91,73,053
e) Maintenance of AC Plant	83,32,412	1,44,94,364
f) Maintenance of Building	51,71,843	81,68,404
g) Vehicles Running and Maintenance		
(i) Petrol ,Oil & Lubricants	6,82,784	5,81,662
(ii) Maintenance	1,27,011	1,70,571
h) Postage, Telephone and Comm. Charges		
(i) Postage	17,092	12,277
(ii) Telephone	7,42,667	3,64,417
i) Printing and Stationary	17,01,464	16,29,023
j) Security expenses	2,14,83,324	1,98,47,000
k) Auditors Remuneration	47,200	40,000
l) Committee Meeting Expenses	23,62,845	18,45,650
m) Legal fees	7,09,960	4,83,227
n) Newspaper and Periodicals	3,32,013	3,32,604
o) Advertisement and Publicity	34,119	62,309
p) Misc.contingencies	1,92,837	4,05,444
q)Houskeeping,sanitation & Contract services	4,12,97,748	3,10,25,793
r) IPR/Patent Filing Charges	38,91,409	29,27,493
s)Rates & Taxes	45,10,162	42,03,810
t)Science Outreach/Extra Curricular Activities	8,18,578	41,76,898
u)Generator Running Expenses	4,10,252	5,44,770
v)Campus/ Field Development	70,99,079	84,76,891
w) Training affiliation and Others	56,01,943	28,53,831
x) NIPGR Fellowships	2,07,17,988	2,33,56,967
y) Travelling and Conveyance Expenses		
(i) Travelling	26,29,525	55,51,042
(ii) Conveyance & Transport	1,08,522	51,360
z) NIPGR NCR Cluster Expenses	-	81,387

Continued

GOYAL PARUL & CO. Chartered Accountants FRN 016760N

Others				
a) Contigency Advance	3,10,313		10,90,013	
b) Consumable Advance	5,26,270		4,88,220	
c) Equipment advance	-		-	
d) Security Deposit paid	58,02,329		56,38,276	
e) New Pension Scheme Subscription	-		1,48,480	
f) Hostel/Mess Security	33,000		99,500	
g) Remittances	9,32,026		6,34,209	
h) Reserve & Surplus	6,13,388		-	
Interest refunded to DBT	66,31,706		88,64,308	
Sponsored Projects	41,25,29,352		44,90,25,992	
Refund to Agencies(DBT/DST)/Funds lapsed	3,01,48,401		36,00,94,225	
Sponsored Fellowship	1,39,05,552		1,41,05,662	
Receivable from Income Tax	1,32,314		39,037	
Sponsored Seminar/ Conference/ Conclave	-		-	
Miscellaneous Liabilities				
GSTDS/GST/TDS Deposited	1,43,25,562		1,09,79,200	
Security Deposit (IGL/M/s Balmer Lawrie)	-		37,128	
GST Input Tax	-		19,350	
Closing Balance				
In Saving Bank Account/Short term Deposit	16,54,57,772		20,26,69,290	
TOTAL		**1,36,07,87,883**		**1,89,94,36,484**

AS PER OUR SEPARATE REPORT OF EVEN DATE ATTACHED.

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	**(SANDEEP DATTA)**	**(DR. SUBHRA CHAKRABORTY)**	**(PARUL GOYAL)**
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	**PARTNER**
			Membership No.099172

PLACE: NEW DELHI
DATE: August , 2024

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-1

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

CSIR PROJECT

R/P entitled Dissection of Proteome Dynamics of high temperature stress in wheat (Triticum AestivumL.) and identification ofpotential candidates for GeneticEngineering

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	3,223		3,775	
Grant- In- Aid for				
i) Staff	9,90,760		-	
ii) Contingencies	1,84,362		-	
iii) Overheads				
Interest Earned	87		85	
TOTAL		11,78,432		3,860

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff	9,90,760		-	
ii) Contingencies	-		-	
iii) Overheads				
Refund to Agency				
Interest	-		637	
CLOSING BALANCE				
With Bank in Saving A/c	1,87,672		3,223	
TOTAL		11,78,432		3,860

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-2

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
R/P entitled To study the interaction between glucose and salicylic acid signal transduction pathway in model plant Arabidopsis thaliana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-		-	
Grant- In- Aid for				
i) Consumable/Contingencies/Travel	1,02,308		-	
Interest Earned	-		-	
TOTAL		1,02,308		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Consumable/Contingencies/Travel	1,02,308		-	
Refund to Agency				
Interest	-		-	
Recurring	-			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		-	
TOTAL		1,02,308		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-3

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

R/P entitled Avanced Research Platform for Crop Sciences

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	24,44,562		19,25,454	
Equipment	-		-	
Grant- In- Aid for				
i) Equipment	-		-	
ii) Manpower	-		57,52,118	
iii) Consumable	-		13,53,333	
iv) Travel	-		-	
v) Contingencies	-		5,80,044	
Interest Earned	-		5,872	
TOTAL		**24,44,562**		**96,16,821**

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	19,599		50,73,859	
iii) Consumable	27,098		14,52,852	
iv) Travel	-		-	
v) Contingencies	69,387		5,25,051	
Refund to Agency				
Interest	-		20,497	
Recurring	23,28,478		1,00,000	
	-		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		24,44,562	
Equipment	-		-	
TOTAL		**24,44,562**		**96,16,821**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-4

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Editing MPK3 a mitogen activated protein kinase gene using CRPSPR/Cas9 tool in rice to study itsrolein cell cyclean d grain yield

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,31,797	
Equipment	-		2,63,154	
Grant- In- Aid for				
i) Equipment	-		-	
ii) Manpower	2,53,817		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Overhead Charges	-		-	
Interest Earned	-		1,639	
TOTAL		2,53,817		3,96,590

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	2,53,817		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Overhead Charges	-		-	
Refund to Agency				
Interest	-		12,022	
Recurring	-		1,21,414	
Equipment	-		2,63,154	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		-	
Equipment	-		-	
TOTAL		2,53,817		3,96,590

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-5

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Plant Genomics and Genotyping Facility

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	13,96,156		3,67,36,505	
Equipment	1,72,663		15,29,97,000	
Grant- In- Aid for				
i) Equipment/Non-recurring	1,29,12,029		-	
ii) Manpower	37,43,876		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Other Expenses	-		-	
vii) Overhead Charges	-		-	
Interest Earned	-		21,20,454	
TOTAL		1,82,24,724		19,18,53,959

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment/Non-recurring	1,40,80,669		15,28,24,337	
ii) Manpower	37,76,390		32,36,607	
iii) Consumable	-		2,62,12,988	
iv) Travel	-		-	
v) Contingencies	5,032		25,55,507	
vi) Other Expenses	-		44,326	
vii) Overhead Charges	-		-	
Refund of Interest	-		54,11,375	
Limits lapsed to CNA				
Recurring	13,58,610			
Equipment	-9,95,877			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		13,96,156	
Equipment	-		1,72,663	
TOTAL		1,82,24,724		19,18,53,959

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP BATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-6

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Generating genomic resources for failitating geneticenhancement ofselective *Vigna species* and Horse gram
Sub-Project-1,Component-2

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	35,22,646		48,70,341	
Equipment	-		11,62,826	
Grant- In- Aid for				
i) Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable	20,00,000		-	
iv) Travel	-		-	
v) Contingencies	-		-	
Interest Earned	-		58,957	
TOTAL		**55,22,646**		**60,92,124**

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	8,29,545		6,35,522	
iii) Consumable	42,54,079		5,68,595	
iv) Travel	22,878		-	
v) Contingencies	2,49,298		72,993	
Refund to agency				
Interest	-		1,31,537	
Equipment	-		11,62,826	
Limits lapsed to CNA				
Recurring	66,846			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		35,22,646	
Equipment	-		-	
TOTAL		**55,22,646**		**60,92,124**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-7

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Integrated Genomic Strategy for Accelerating Domestication of Rice Bean (*Vigna umbellata*) Sub-Project-2,Component-1

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,06,690		44,14,497	
Equipment	-		-	
Grant- In- Aid for				
i) Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable	25,00,000		-	
iv) Travel	-		-	
v) Contingencies	-		-	
Others Receipts	6,12,353			
Interest Earned	-		28,768	
TOTAL		33,19,043		44,43,265

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	6,12,353		17,84,708	
iii) Consumable	25,85,447		23,52,445	
iv) Travel	20,527		16,128	
v) Contingencies	-		49,141	
Refund of Interest	-		34,153	
Limits lapsed to CNA				
Recurring	1,00,716			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,06,690	
Equipment	-		-	
TOTAL		33,19,043		44,43,265

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-8

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Transforming India's Green Revolution by Research and Empowerment for Sustainable foodSupllies (TIGR2ESS) under the Global Challenges Research Fund programme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	6,95,479		8,28,840	
Grant- In- Aid for				
i) Staff Fund	-		-	
ii) Research Fund	-		6,01,590	
iii) Overheads	-		-	
Interest Earned	-		5,220	
TOTAL		6,95,479		14,35,650

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff Fund	-		-	
ii) Research Fund	6,95,182		7,40,171	
iii) Overheads	-		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	297		6,95,479	
TOTAL		6,95,479		14,35,650

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-9

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Indo-Swiss Unravelling the interaction of mineral nutrition (N and K) andvitamin B6 metabolism forsustainable agricultural practics

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,04,324		8,96,587	
Equipment	-		-	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	9,83,520		-	
iii) Consumable	14,12,000		-	
iv) Travel	94,000		-	
v) Contingencies	47,000		-	
vi)Others	47,000		-	
Interest Earned	-		7,354	
TOTAL		27,87,844		9,03,941

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	5,26,111		3,27,840	
iii) Consumable	14,12,013		33,995	
iv) Travel	69,591		3,00,906	
v) Contingencies	46,984		19,998	
vi)Others	46,933		-	
Refund of Interest Earned	-		16,878	
Refund to Agency				
Recurring	6,86,212		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,04,324	
Equipment	-		-	
TOTAL		27,87,844		9,03,941

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-10

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Indo-Swiss Beyond transgenic plants: use of precise genome editing for improving growth under low phosphorus input

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	4,09,606		19,33,043	
Equipment	-		-	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	15,14,504		-	
iii) Consumable	9,77,692		-	
iv) Travel	40,000		-	
v) Contingencies	-		-	
vi)Others	-		-	
Interest Earned	-		16,453	
TOTAL		**29,41,802**		**19,49,496**

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	15,19,877		8,10,960	
iii) Consumable	11,38,597		5,57,652	
iv) Travel	1,368		38,886	
v) Contingencies	8,000		91,660	
vi)Others	2,71,336		-	
Refund of Interest	-		40,732	
Refund to Agency				
Recurring	2,624		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		4,09,606	
Equipment	-		-	
TOTAL		**29,41,802**		**19,49,496**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-11

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Structural studies of proteins involved in DNA repair and recombination in Plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	16,82,525		2,62,537	
Grant- In- Aid for				
i) Fellowship	-		14,22,000	
ii) Reseach/Contingency grant	-		7,50,000	
iii)Overhead Charges	-		50,000	
Interest Earned	28,060		18,718	
TOTAL		17,10,585		25,03,255

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	-		4,54,887	
ii) Reseach/Contingency grant	6,24,532		3,15,309	
iii)Overhead Charges	-		50,000	
Refund of Interest	18,718		534	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	10,67,335		16,82,525	
TOTAL		17,10,585		25,03,255

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-12

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Elucidating the role of small RNA based effectors involved in root colonization of a growth promoting endophytic fungus Piriformospora indica in chickpea(Cicer arietinum)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-		63,766	
Grant- In- Aid for				
i) Manpower	6,00,000		-	
ii) Consumable	-		-	
iii) Travel	-		-	
iv) Contingencies	-		-	
v) Overhead Charges	-		-	
Interest Earned	-		419	
TOTAL		6,00,000		64,185

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,00,000		-	
ii) Consumable	-		-	
iii) Travel	-		-	
iv) Contingencies	-		-	
v) Overhead Charges	-		-	
Refund to Agency				
Interest	-		1,676	
Recurring	-		62,509	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		-	
TOTAL		6,00,000		64,185

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-13

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Imparting sheath blight disease tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,60,721		16,55,614	
Equipment	-1,54,360		-1,54,360	
Grant- In- Aid for				
i)Equipemnt	-		-	
ii) Manpower	49,42,174		3,26,399	
iii) Consumable	-		-1,51,075	
iv) Travel	-		-1,73,459	
v) Contingencies	-		-1,865	
Interest Earned	-		16,603	
TOTAL		51,48,535		15,17,857

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipemnt	-		-	
ii) Manpower	32,62,046		2,36,902	
iii) Consumable	34,913		8,89,005	
iv) Travel	-		1,867	
v) Contingencies	1,904		1,27,651	
Refund of Interest Earned	-		56,071	
Refund to Agency				
Equipment	-1,54,360			
Recurring	20,04,032			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		3,60,721	
Equipment	-		-1,54,360	
TOTAL		51,48,535		15,17,857

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-14

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Characterization of Genetic Resources: Germplasm characterization and Trait discovery in Wheat using Genomics Approaches and its intergration for improving climate Resilience, Productivity and Nutritional quality

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,95,96,937		18,89,431	
Equipment	-		-	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	24,59,131		4,48,213	
iii) Consumable	-		3,97,778	
iv) Outsourcing	-		1,90,00,000	
v) Travel	9,702		-	
vi) Contingencies	-		49,935	
Interest Earned	82,403		13,813	
TOTAL		2,21,48,173		2,17,99,170

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	23,21,920		21,33,761	
iii) Consumable	3,42,043		-	
iv) Outsourcing	1,63,12,657		-	
v) Travel	-		9,702	
vi) Contingencies	35,490		-	
Refund of Interest Earned	1,699		58,770	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	31,34,364		1,95,96,937	
Equipment	-		-	
TOTAL		2,21,48,173		2,17,99,170

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-15

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Investigating the molecular-genetic basis of multifunctional glucosinolate transporters (GTR1/GTR2) in Brassica crops

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	32		30,936	
Grant- In- Aid for				
i) Cash Award	-		-	
ii) Research Grant	4,77,648		-	
Interest Earned	-		59	
TOTAL		4,77,680		30,995

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Cash Award	-		-	
ii) Research Grant	4,77,427		30,091	
Refund of Interest Earned	-		872	
Refund to Agency	253			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		32	
TOTAL		4,77,680		30,995

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-16

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Characterization of Genetic Resources: Main-streaming rice landraces diversity in varietal development through genome-wide association studies: A model for large-scale utilization of gene bank collections or rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	74,348		2,60,136	
Equipment	213		213	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	13,09,440		6,54,720	
iii) Consumable	4,00,000		7,00,000	
iv) Travel	-		50,000	
v) Contingencies	48,000		75,000	
Interest Earned	1,985		1,952	
TOTAL		18,33,986		17,42,021

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	8,56,599		8,71,206	
iii) Consumable	3,84,078		6,99,915	
iv) Travel	59,542		20,288	
v) Contingencies	47,884		73,879	
Refund of Interest Earned	829		2,172	
Refund to Agency				
Equipment	213			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	4,84,841		74,348	
Equipment	-		213	
TOTAL		18,33,986		17,42,021

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO FRN 016750N Chartered Accountants

ANNEXURE-17

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Plant Genomics, Gene Regulatory Network and Novel RNA Molecules

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	24,77,903		7,55,702	
Equipment	50,00,000		2,62,380	
Grant- In- Aid for				
i)Equipment	-		49,86,420	
ii) Manpower	-		23,95,680	
iii) Consumable	-		4,00,000	
iv) Travel	-		50,000	
v) Contingencies	-		50,000	
vi) Registration Fees	82,500		5,00,000	
Interest Earned	-		1,775	
TOTAL		75,60,403		94,01,957

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	49,39,780		2,48,800	
ii) Manpower	15,25,520		15,37,829	
iii) Consumable	-		1,04,056	
iv) Travel	-		-	
v) Contingencies	-		4,828	
vi) Registration Fees				
Refund of Interest Earned	-		28,541	
Limits lapsed to CNA				
Recurring	9,52,383			
Equipment	60,220			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	82,500		24,77,903	
Equipment	-		50,00,000	
TOTAL		75,60,403		94,01,957

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-18

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Characterization of Chickpea Germplasm Resource to accelerate Genomics assisted Crop Improvement under mission programme of "Characterization of Genetic Resources"Project Management Unit (PMU) Component-1

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	42,17,897		37,16,767	
Equipment	98,295		1,59,62,905	
Grant- In- Aid for Other Agencies				
Non-Recurring	-		-	
Recurring	-		5,42,48,279	
Grant- In- Aid for NIPGR				
i)Equipment	-		-	
ii) Works				
ii) Manpower	21,48,000		11,11,079	
iii) Consumables	-		-	
iv) Travel	1,97,350		1,21,934	
v) Contingencies	2,00,000		2,00,000	
vi) Other Expenses	-		17,93,600	
Interest Earned	-		1,73,437	
TOTAL		68,61,542		7,73,28,001

PAYMENTS				AMOUNT IN RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Released to Other Agencies				
Non-Recurring	-		-	
Recurring	-		5,42,48,279	
i)Equipment	-		1,58,64,610	
ii) Manpower	19,26,492		19,48,000	
iii) Consumables	29,98,955			
iv) Travel	1,66,249		1,09,546	
v) Contingencies	2,00,646		2,19,497	
vi) Other Expenses	5,13,255		-	
Refund of Interest Earned	-		6,21,877	
Limits lapsed to CNA				
Recurring	9,57,450			
Equipment	98,295			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		42,17,897	
Equipment	-		98,295	
TOTAL		68,61,542		7,73,28,001

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-19

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Characterization of Chickpea Germplasm Resource to accelerate Genomics assisted Crop Improvement under mission programme of "Characterization of Genetic Resources"Component-2

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	19,70,486		46,45,311	
Equipment	59,97,381		1,64,27,377	
Grant- In- Aid for				
i)Equipment & Works	-		-	
ii) Manpower	51,68,085		38,70,816	
iii) Consumable	2,18,32,814		2,39,25,323	
iv) Travel	33,189		50,000	
v) Contingencies	50,000		23,726	
vI) Field & Farm Expenses	2,00,000		2,00,000	
vii) Overhead Charges	-		-	
Interest Earned	-		2,45,452	
TOTAL		3,52,51,955		4,93,88,005

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	57,92,108		1,04,29,996	
ii) Manpower	50,10,052		48,10,965	
iii) Consumable	2,19,50,246		2,51,62,195	
iv) Travel	71,105		16,114	
v) Contingencies	30,588		40,463	
vI) Field & Farm Expenses	2,35,681		2,35,005	
Refund of Interest Earned	-		7,25,400	
Limits lapsed to CNA				
Recurring	19,56,702			
Equipment	2,05,273			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		19,70,486	
Equipment	-		59,97,381	
TOTAL		3,52,51,955		4,93,88,005

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-20

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

The chemical ecology of high L-DOPA containing plants and their interaction with herbivores

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,43,264		1,07,970	
Equipment	-			
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	3,76,905		4,17,200	
iii) Consumable	3,01,531		2,98,469	
iv) Travel	-		-	
v) Contingencies	-		-	
Interest Earned	-		52	
TOTAL		8,20,800		8,23,691

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	4,60,316		4,05,067	
iii) Consumable	3,17,147		2,72,469	
iv) Travel	-		-	
v) Contingencies	-		-	
Refund of Interest Earned	-		2,891	
Refund to Agency	43,337			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,43,264	
Equipment	-			
TOTAL		8,20,800		8,23,691

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No 099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-21

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Genetic dissection of flowering and podding efficiency for enhancing yield stability and productivity in chickpea

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS

AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,257		42,232	
Equipment	-			
Grant- In- Aid for				
i)Research Grant	5,00,000		-	
ii)Cash Award	-		-	
Interest Earned	-		17	
TOTAL		5,01,257		42,249

PAYMENTS

AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Research Grant	3,58,677		40,182	
ii)Cash Award	-		-	
Refund of Interest Earned	-		810	
Limits lapsed to CNA				
Recurring	1,42,580			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,257	
Equipment	-			
TOTAL		5,01,257		42,249

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-22

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Biotechnological approaches to improve shelf life, productivity of vegetables- (Tomato)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,82,206			
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	2,38,700		5,20,800	
iii) Consumable	9,19,894		9,20,000	
iv) Travel	-			
v) Contingencies	-			
Interest Earned	-		-	
TOTAL		14,40,800		14,40,800

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	4,66,200		2,38,700	
iii) Consumable	8,34,851		9,19,894	
iv) Travel	-		-	
v) Contingencies	-		-	
Limits lapsed to CNA				
Recurring	1,39,749			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,82,206	
TOTAL		14,40,800		14,40,800

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-23

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Targeting Pup1 independent mechanisms for improving low soil phosphorus tolerance and use-efficiency in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	4,75,312		45,72,341	
Equipment	-		11,96,000	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	9,19,912		-	
iii) Consumable	14,67,572		-	
iv) Travel	-		-	
v) Contingencies	8,354		-	
vi)Other Expenses	-		-	
Interest Earned	-		67,063	
TOTAL		28,71,150		58,35,404

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		10,91,414	
ii) Manpower	9,22,040		11,18,761	
iii) Consumable	14,67,879		24,73,365	
iv) Travel	18,125		16,618	
v) Contingencies	12,283		32,095	
vi)Other Expenses	1,95,143		4,04,738	
Refund to Agency				
Interest Earned	-		1,18,515	
Equipment	-		1,04,586	
Limits lapsed to CNA				
Recurring	2,55,680			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		4,75,312	
Equipment	-		-	
TOTAL		28,71,150		58,35,404

For GOYAL PARUL & Co.

CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

National Certification System for Tissue Culture raised Plants (NCS-TCP)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,51,58,759		1,49,70,756	
Equipment	-26,712		15,03,837	
Grant- In- Aid for Other Agencies				
Non-Recurring	-		-	
Recurring	1,44,48,836		-	
Grant- In- Aid for				
i)Non-recurring	-		-	
ii) Website Development	-		-	
iii) Manpower	28,63,915		-	
iv) Website Maintenance	1,92,985		-	
v) Organisation of Site Visits	14,03,218		-	
vi) Organizing meeting of APEX	-		-	
vii) Organizing awareness programs/Stakeholders meet	-		-	
viii) Outsourcing for Management	-		-	
ix) Consumables	5,79,692		-	
x) Contingencies	1,07,500		-	
xi) CONSUMABLES Including Diagnostic Kits	2,99,75,611		-	
Receipts against Testing/Cerification	3,44,67,701		2,49,49,842	
Interest Earned	4,52,070		2,97,903	
TOTAL		9,96,23,575		**4,17,22,338**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
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Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
National Certification System for Tissue Culture raised Plants (NCS-TCP)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

PAYMENTS

AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Released to Other Agencies				
Non-Recurring	-		-	
Recurring	1,44,48,836		-	
	-		-	
i)Non-recurring	-		15,30,549	
ii) Website Development	-		4,99,990	
iii) Manpower	28,53,759		48,00,163	
iv) Website Maintenance	94,283		2,16,857	
v) Organisation of Site Visits	13,57,976		14,43,131	
vi) Organizing meeting of APEX	1,39,794		50,890	
vii) Organizing awareness programs/Stakeholders meet	3,92,155		-	
viii) Outsourcing for Management	55,670		1,49,936	
ix) Consumables	5,96,458		3,99,018	
x) Contingencies	1,63,223		2,22,155	
xi) CONSUMABLES Including Diagnostic Kits	2,99,84,838		89,858	
Refund to Agency	-		-	
Interest Earned	3,00,043		3,92,870	
Receipts against Testing/Cerification	3,11,11,714		1,67,94,874	
Limits lapsed to CNA				
Recurring	33,71,162			
Equipment	-26,712			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	1,47,80,376		1,51,58,759	
Equipment	-		-26,712	
TOTAL		9,96,23,575		4,17,22,338

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-25

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Development of D-allulose based nano-formulations for enhanced stress tolerance and increased crop productivity

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,96,285		9,67,247	
Grant- In- Aid for				
i) Manpower	1,52,520		-	
ii) Consumable	4,71,973		-	
iii) Travel	-		-	
iv) Contingencies	5,379		-	
Interest Earned	-		8,700	
TOTAL		10,26,157		9,75,947

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	4,61,280		3,39,760	
ii) Consumable	4,41,815		2,21,338	
iii) Travel	13,465		-	
iv) Contingencies	-		3,379	
Refund of Interest Earned	-		15,185	
Limits lapsed to CNA				
Recurring	1,09,597			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		3,96,285	
TOTAL		10,26,157		9,75,947

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-26

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Platform for Measurement of Free Radicals (PMFR)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	17,53,431		37,50,100	
Equipment	3,48,85,000		3,53,34,000	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable	28,98,985		-	
iv) Travel	46,903		-	
v) Contingencies	49,000		-	
vi) Others	2,00,000			
Interest Earned	-		5,24,098	
TOTAL		3,98,33,319		3,96,08,198

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	2,88,70,810		4,49,000	
ii) Manpower	14,58,240		4,39,041	
iii) Consumable	28,68,020		11,99,676	
iv) Travel	-		46,903	
v) Contingencies	49,189		49,000	
vi) Others	-		-	
Refund of Interest Earned	-		7,86,147	
Limits lapsed to CNA				
Recurring	5,72,870			
Equipment	60,14,190			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		17,53,431	
Equipment	-		3,48,85,000	
TOTAL		3,98,33,319		3,96,08,198

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-27

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

A National Mission Mode Program on Nutritional improvement of digestible protein content and quality in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	22,24,049		52,77,007	
Equipment	1,20,40,557		5,72,00,000	
Grant- In- Aid for				
i)Equipment	-		1,07,72,435	
ii) Manpower	-		-	
iii) Consumable	-		-	
iv) Travel	-		-	
v) Contingencies	-		-	
vi) Other Expenses	-		-	
Interest Earned	-		8,35,661	
TOTAL		1,42,64,606		**7,40,85,103**

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	1,18,87,812		5,59,31,878	
ii) Manpower	20,14,376		11,27,293	
iii) Consumable	-		14,98,148	
iv) Travel	23,198		-	
v) Contingencies	20,000		1,45,630	
vi) Other Expenses	-		2,000	
Refund of Interest Earned	-		11,15,548	
Limits lapsed to CNA				
Recurring	1,66,475			
Equipment	1,52,745			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		22,24,049	
Equipment	-		1,20,40,557	
TOTAL		1,42,64,606		**7,40,85,103**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-28

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Genetic engineering of Ubiquitin-proteasome pathway gene (SIRT4a) for providing tolerance against ToLCNDV in tomato

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS

AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	5,53,035		20,92,769	
Grant- In- Aid for				
i) Manpower	3,50,768		-	
ii) Consumable	8,55,002		-	
iii) Travel	527		-	
iv) Contingencies	44,188		-	
Interest Earned	-		16,860	
TOTAL		18,03,520		21,09,629

PAYMENTS

AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	7,58,161		6,37,740	
ii) Consumable	8,43,156		8,55,002	
iii) Travel	29,098		527	
iv) Contingencies	43,995		43,753	
Refund of Interest Earned			19,572	
Limits lapsed to CNA				
Recurring	1,29,110			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		5,53,035	
TOTAL		18,03,520		21,09,629

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-29

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
DBT R/P entitled "Increasing Iron Levels in Rice Grains Through Altering the Expression of Vacuolar Iron Transporter (VIT)-Like genes".

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,86,400		11,34,345	
Grant- In- Aid for				
i) Manpower	-		-	
ii) Consumable	1,08,704		-	
Interest Earned	-		10,569	
TOTAL		4,95,104		11,44,914

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,52,640		3,26,816	
ii) Consumable	-		4,16,047	
Refund of Interest Earned	-		15,651	
Limits lapsed to CNA				
Recurring	1,42,464			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		3,86,400	
TOTAL		4,95,104		11,44,914

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-30

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Generation of a retrotransposon-based mutant population of chickpea for functional genomics studies

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,63,721		19,44,620	
Equipment	22,66,718		30,13,000	
Grant- in- Aid for				
i)Equipment	-		-	
ii) Manpower	9,50,677		-	
iii) Consumable	7,90,168		-	
iv) Travel	16,861		-	
v) Contingencies	42,093		-	
Interest Earned	-		55,148	
TOTAL		42,30,238		50,12,768

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	22,06,400		7,46,282	
ii) Manpower	10,08,681		9,50,677	
iii) Consumable	7,85,546		7,90,168	
iv) Travel	14,187		16,861	
v) Contingencies	49,303		22,093	
Refund of Interest Earned	-		56,248	
Limits lapsed to CNA				
Recurring	1,05,803			
Equipment	60,318			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,63,721	
Equipment	-		22,66,718	
TOTAL		42,30,238		50,12,768

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-31

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Genome Editing mediated Nutritional Improvement of Potato (Solanum tuberosum L.)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,49,301		192	
Equipment	9,00,000		9,00,000	
Grant- In- Aid for				
i)Equipment	1,62,000		-	
ii) Manpower	-		4,61,280	
iii) Consumable	-		7,00,000	
iv) Travel	-		20,000	
v) Contingencies	-		50,000	
vi) Overhead Charges	-		50,000	
Interest Earned	-		12,150	
TOTAL		12,11,301		21,93,622

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	10,60,001		-	
ii) Manpower	1,20,280		3,41,000	
iii) Consumable	-		6,98,279	
iv) Travel	-		-	
v) Contingencies	4,050		42,700	
vi) Overhead Charges	-		50,000	
Refund of Interest Earned	-		12,342	
Limits lapsed to CNA				
Recurring	24,971			
Equipment	1,999			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,49,301	
Equipment	-		9,00,000	
TOTAL		12,11,301		21,93,622

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-32

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Screening and identification of Spodoptera litura effectors proteins using RNA interference and its functional validation in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,21,703		14,58,491	
Equipment	10,00,000		10,00,000	
Grant- In- Aid for				
i)Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable/Travel/Contingency	20,00,000		-	
iv) Fellowship	9,00,000		-	
Interest Earned	-		25,465	
TOTAL		41,21,703		24,83,956

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	9,99,080		-	
ii) Manpower			-	
iii) Consumable/Travel/Contingency	21,68,076		7,78,297	
iv) Fellowship	9,00,000		4,50,000	
Refund of Interest Earned			33,956	
Limits lapsed to CNA				
Recurring	53,627			
Equipment	920			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,21,703	
Equipment	-		10,00,000	
TOTAL		41,21,703		24,83,956

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-33

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
Exploration of heat and cytokinin signaling interaction for enhancing thermomemory in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,23,770			
Grant- In- Aid for				
i) Manpower	6,05,031		4,32,165	
ii) Consumable	-		20,00,000	
iiv) Contingencies	50,000		50,000	
TOTAL		7,78,801		24,82,165

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,31,782		4,05,020	
ii) Consumable	89,554		19,03,379	
iii) Contingencies	2,000		49,996	
Limits lapsed to CNA				
Recurring	55,465			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,23,770	
TOTAL		7,78,801		24,82,165

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP GATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-34

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Investigating post-transcriptional regulation of jasmonate signalling for improving rice response to environmental stresses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,30,844			
Equipment	-			
Grant- in- Aid for				
i)Equipment	10,00,000		-	
ii) Manpower	4,61,280		4,61,280	
iii) Consumable/Travel/Contingency	14,38,516		5,38,720	
iv) Fellowship	9,00,000		9,00,000	
Interest Earned	-		-	
TOTAL		41,30,640		19,00,000

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-		-	
ii) Manpower	4,61,280		1,31,440	
iii) Consumable/Travel/Contingency	12,96,184		5,37,716	
iv) Fellowship	9,00,000		9,00,000	
Limits lapsed to CNA				
Recurring	4,73,176			
Equipment	10,00,000			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		3,30,844	
Equipment	-		-	
TOTAL		41,30,640		19,00,000

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-35

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Towards Identification isolation and characterization of Exobasidium vexans strains and their pathogenic determinants/effectors, form Blisters blight infested tea plantations of Assam and development of future road-map for effective management practices

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-1,81,161			
Grant- In- Aid for				
i) Manpower	-		-	
ii) Consumable/Travel/Contingency	-		-	
iii) Fellowship	-		-	
TOTAL		-1,81,161		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		1,81,161	
ii) Consumable/Travel/Contingency	-		-	
iii) Fellowship	-		-	
Limits lapsed to CNA				
Recurring	-1,81,161			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		-1,81,161	
TOTAL		-1,81,161		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-36

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Dissecting the role of S-nitroso glutathione reductase and phytoglobin in anaerobic germination of rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Equipment				
Grant- in- Aid for				
i)Equipment	10,00,000			
ii) Manpower	2,97,600			
iii) Consumable/Travel/Contingency	7,02,400			
iv) Fellowship	9,00,000			
TOTAL		29,00,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	98,000			
ii) Manpower	56,000			
iii) Consumable/Travel/Contingency	6,95,433			
iv) Fellowship	8,95,000			
Limits lapsed to CNA				
Recurring	2,53,567			
Equipment	9,02,000			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		29,00,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-37

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Deciphering the role of nitric oxide in mediating Thermomemory in Plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Equipment				
Grant- In- Aid for				
i)Equipment	10,00,000			
ii) Manpower	5,20,800			
iii) Consumable/Travel/Contingency	4,79,200			
iv) Fellowship	9,00,000			
TOTAL		29,00,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	7,15,600			
ii) Manpower	2,14,993			
iii) Consumable/Travel/Contingency	4,78,041			
iv) Fellowship	8,95,000			
Limits lapsed to CNA				
Recurring	3,11,966			
Equipment	2,84,400			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		29,00,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-38

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Exploring the link between calcium signaling and sugar transport in the root endophytic mutualism of Piriformospora indica and Arabaidopsis thaliana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Equipment				
Grant- In- Aid for				
i)Equipment	10,00,000			
ii) Manpower	4,61,280			
iii) Consumable/Travel/Contingency	5,38,720			
iv) Fellowship	9,00,000			
TOTAL		29,00,000		-

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	9,97,339			
ii) Manpower	2,05,840			
iii) Consumable/Travel/Contingency	5,23,256			
iv) Fellowship	8,95,000			
Limits lapsed to CNA				
Recurring	2,75,904			
Equipment	2,661			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		29,00,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-39

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Identification of molecular players that modulate plant immunity during rhizobial infection of chickpea

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i)Equipment	10,00,000			
ii) Manpower	4,61,280			
iii) Consumable/Travel/Contingency	5,38,720			
iv) Fellowship	9,00,000			
TOTAL		**29,00,000**		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	80,550			
ii) Manpower	1,77,320			
iii) Consumable/Travel/Contingency	5,36,546			
iv) Fellowship	8,95,000			
Limits lapsed to CNA				
Recurring	2,91,134			
Equipment	9,19,450			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		**29,00,000**		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-40

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Cambridge-India Network for Translational Research in Nitrogen-2

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Equipment				
Grant- In- Aid for				
i)Equipment	17,78,390			
ii) Manpower	4,01,760			
iii) Consumable	8,00,000			
iv) Travel	30,000			
v) Contingencies	40,000			
TOTAL		30,50,150		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	4,65,073			
ii) Manpower	1,38,165			
iii) Consumable	9,94,844			
iv) Travel	-			
v) Contingencies	49,937			
Limits lapsed to CNA				
Recurring	88,814			
Equipment	13,13,317			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		30,50,150		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-41

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Identification of Spodoptera derived Herbivore Associated Molecular patterns (HAMP) that modulate induced plant defense (JA-NWBA-2021)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i)Research Grant	5,00,000			
ii)Cash Award	1,00,000			
TOTAL		6,00,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Research Grant	4,61,414			
ii)Cash Award	1,00,000			
Limits lapsed to CNA				
Recurring	38,586			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		6,00,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-42

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
National Network Project of Jawaharlal Nehru University, New Delhi

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i) Manpower	2,97,600			
ii) Contingencies	30,000			
TOTAL		3,27,600		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	62,401			
ii) Contingencies	-			
Limits lapsed to CNA				
Recurring	2,65,199			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		3,27,600		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-43

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
DBT-UDSC Partnership Centre on Genetic manipulation of Brassicas-Phase-II

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i)Equipment	-			
ii) Manpower	9,52,320			
iii) Consumable	4,00,000			
iv) Travel	20,000			
v) Contingencies	50,000			
vi) Others	5,50,000			
TOTAL		19,72,320		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Equipment	-			
ii) Manpower	6,62,719			
iii) Consumable	3,99,827			
iv) Travel	-			
v) Contingencies	49,324			
vi) Others	5,49,928			
Limits lapsed to CNA				
Recurring	3,10,522			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
TOTAL		19,72,320		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-44

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

National Network Component

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i) Manpower				
ii) Consumable	5,61,280			
iii) Travel				
iv) Contingencies				
TOTAL		5,61,280		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-			
ii) Consumable	-			
iii) Travel	-			
iv) Contingencies	-			
Limits lapsed to CNA				
Recurring	5,61,280			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		5,61,280		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-45

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

National Network project of Indraprastha Institute of Information Technology Delhi

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i) Manpower				
ii) Consumable				
iii) Travel	4,36,640			
iv) Contingencies				
TOTAL		4,36,640		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-			
ii) Consumable	-			
iii) Travel	-			
iv) Contingencies	-			
Limits lapsed to CNA				
Recurring	4,36,640			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		4,36,640		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-46

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Development of in-silico platforms for analysis of high-throughput genomics, transcriptomics and proteomics data: Application to human/plant and its pathogens-national Network Project of CSIR- Institute of Genomics and Integrative Biology, New Delhi

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Grant- In- Aid for				
i) Manpower	11,45,760			
ii) Consumable/Contingencies/Travel	3,00,000			
TOTAL		14,45,760		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower				
ii) Consumable/Contingencies/Travel				
Limits lapsed to CNA				
Recurring	14,45,760			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		14,45,760		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-47

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Functional characterization of a novel gene WRKY transcription factor gene (WRKY107) for its role in conferring phosphorus deficiency tolerance to rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid				
i) Manpower				
ii) Consumable	17,98,338			
iii) Travel				
iv) Contingencies				
TOTAL		17,98,338		-

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	1,86,452			
ii) Consumable	-			
iii) Travel	-			
iv) Contingencies	-			
Limits lapsed to CNA				
Recurring	16,11,886			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		17,98,338		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-48

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Identification and functional characterization of lncRNAs in foxtail millet in response to abiotic stresses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid				
i) Manpower				
ii) Consumable	18,66,000			
iii) Travel				
iv) Contingencies				
TOTAL		18,66,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	2,47,871			
ii) Consumable	-			
iii) Travel	-			
iv) Contingencies	-			
Limits lapsed to CNA				
Recurring	16,18,129			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		18,66,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO FRN 016750N Chartered Accountants

ANNEXURE-49

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Unraveling miRNA regulatory modules in chickpea against Fusarium wilt

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Grant- In- Aid for				
i) Manpower				
ii) Consumable	20,61,996			
iii) Travel	-			
iv) Contingencies	-			
TOTAL		20,61,996		-

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-			
ii) Consumable	-			
iii) Travel	-			
iv) Contingencies				
Limits lapsed to CNA				
Recurring	20,61,996			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		20,61,996		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-50

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

Bioprospecting mycophagous and anti-bacterial activity of a rice associated bacterium to control plant diseases

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i)Research Grant	5,00,000			
ii)Cash Award	2,00,000			
TOTAL		7,00,000		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Research Grant	-			
ii)Cash Award	-			
Limits lapsed to CNA				
Recurring	7,00,000			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-			
TOTAL		7,00,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-51

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
J.C.Bose Fellowship- Dr.Manoj Prasad

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,37,310		1,08,686	
Grant - In - Aid for				
i) Fellowship	1,75,000		2,75,000	
ii) Consumable/Travel/ Contingencies /Equipment	6,05,290		14,15,000	
iii)Overheads	19,710		1,00,000	
Interest Earned	2,096		919	
TOTAL		10,39,406		18,99,605

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	1,74,194		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	7,69,961		12,62,295	
iii)Overheads	19,710		1,00,000	
Refund to Agency				
Recurring	75,541			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,37,310	
TOTAL		10,39,406		18,99,605

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-52

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT
INSPIRE Fellow Award- Dr. Deepika Sharma

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	2,243		71,145	
Grant- In- Aid for				
i) Manpower	15,46,000		15,70,533	
ii)Consumable/Contingency/ Travel/Equipment	6,65,000		6,00,582	
iii) Overhead Charges	35,000		31,610	
Interest Earned	-		59	
TOTAL		22,48,243		22,73,929

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	15,46,000		15,70,041	
ii)Consumable/Contingency/ Travel	6,60,504		6,37,719	
iii) Overhead Charges	35,000		62,056	
Refund of Interest Earned	59		1,870	
Refund to Agency	2,184			
Limits lapsed to CNA				
Recurring	4,496			
CLOSING BALANCE				
With Bank in Saving A/c	-		2,243	
TOTAL		22,48,243		22,73,929

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-53

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Genome-wide identification and characterization of fusion events in different plant species

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	2,13,278		2,63,845	
Equipment	340		340	
Grant - In - Aid for				
i) Equipment	-		-	
ii) Manpower	-		70,000	
iii) Consumable/Contingencies/Travel	-		4,98,500	
iv) SSR	-		-	
v)Overheads	-		31,500	
Interest Earned	481		3,618	
TOTAL		2,14,099		8,67,803

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	-		2,99,600	
iii) Consumable/Contingencies/Travel	-		3,13,215	
iv) SSR	-		9,870	
v)Overheads	-		31,500	
Refund to Agency				
Recurring	2,13,759			
Equipment	340			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		2,13,278	
Equipment	-		340	
TOTAL		2,14,099		8,67,803

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-54

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
J.C.Bose Fellowship- Dr.Subhra Chakraborty

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,31,330		68,162	
Grant - In - Aid for				
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	13,50,000		14,00,000	
iii)Overheads	1,00,000		1,00,000	
Interest Earned	715		1,840	
TOTAL		18,82,045		18,70,002

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	14,54,865		13,38,672	
iii)Overheads	1,00,000		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	27,180		1,31,330	
TOTAL		18,82,045		18,70,002

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-55

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Deciphering role(s) of post-translational modifications and chromatin regulation ofimmunity in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	87,304		65,416	
Grant - In - Aid for				
i)Manpower	4,21,200		8,03,520	
ii) Consumable/Contingencies/Travel	1,78,800		8,46,787	
iii) SSR	-		-	
iv)Overheads	-		1,49,693	
Interest Earned	1,179		1,766	
TOTAL		6,88,483		18,67,182

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	4,21,199		8,03,520	
ii) Consumable/Contingencies/Travel	99,996		8,18,439	
iii) SSR	-		8,226	
iv)Overheads	-		1,49,603	
Refund to Agency				
Recurring	1,67,288			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		87,304	
TOTAL		6,88,483		18,67,182

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-56

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
The role of phytoglobin nitric oxide cycle in oxygen sensing and plasticity ofmitochondrial response to low oxygen stress in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	80,605		1,27,137	
Equipment	-		3,19,998	
Grant - In - Aid for				
i) Equipment	-		-	
ii)Manpower	-		2,60,400	
iii) Consumable/Contingencies/Travel	-		4,32,869	
iv) SSR	-		-	
v)Overheads	-		1,06,731	
Interest Earned	753		2,119	
TOTAL		81,358		12,49,254

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		3,19,998	
ii)Manpower	50,170		3,03,800	
iii) Consumable/Contingencies/Travel	-		4,38,120	
iv) SSR	-			
v)Overheads	-		1,06,731	
Refund to Agency				
Recurring	31,188			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		80,605	
Equipment	-		-	
TOTAL		81,358		12,49,254

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-57

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Financial Approval of the SwarnaJayanti Fellowship to Dr. Jitender Giri

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,02,312		3,99,622	
Grant - In - Aid for				
i) Fellowship	-		-	
ii) Consumable/ Travel/Contingencies /Equipment	-		-	
iii) Overhead Charges	-		-	
Interest Earned	174		2,690	
TOTAL		1,02,486		4,02,312

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	15,517		3,00,000	
ii) Consumable/ Travel/Contingencies /Equipment	-		-	
iii) Overhead Charges	-		-	
Refund to Agency	-		-	
Recurring	86,969			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,02,312	
TOTAL		1,02,486		4,02,312

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-58

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)

NEW DELHI

SERB PROJECT

Unlinking phosphate deficiency responses from their adverse effects on growth in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,99,825		23,42,685	
Equipment	30,408		30,408	
Grant - In - Aid for				
i) Fellowship	3,00,000		-	
ii)Manpower	9,27,120		-	
iii)Consumable/ Travel/Contingencies /Equipment	14,90,168		-	
iv) Overheads	2,82,712		-	
Interest Earned	6,216		6,053	
TOTAL		32,36,449		23,79,146

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		-	
ii)Manpower	8,37,028		9,27,120	
iii)Consumable/ Travel/Contingencies /Equipment	8,71,249		11,03,053	
iv) Overheads	2,82,712		1,18,740	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	9,15,052		1,99,825	
Equipment	30,408		30,408	
TOTAL		32,36,449		23,79,146

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-59

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Integrating omics approaches to understand themolecular mechanism underlying plants response to tomato leaf curl disease- Woman Excellence Award

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	62,829		81,074	
Grant- In- Aid for				
i)Consumable/Contingency/Travel	-		-	
ii) Overhead Charges	-		-	
Interest Earned	-		1,652	
TOTAL		62,829		82,726

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Consumable/Contingency/ Travel	-		19,897	
ii) Overhead Charges	-		-	
Refund to Agency	62,829			
CLOSING BALANCE				
With Bank in Saving A/c	-		62,829	
TOTAL		62,829		82,726

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-60

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
J.C.Bose Fellowship- Dr.Debasis Chattopadhyay

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	19,632		8,53,654	
Grant - In - Aid for				
i) Fellowship	3,00,000		2,75,000	
ii) Consumable/Travel/ Contingencies /Equipment	14,80,000		6,71,000	
iii)Overheads	1,00,000		1,00,000	
Interest Earned	530		516	
TOTAL		19,00,162		19,00,170

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/ Travel /Contingencies /Equipment	11,06,601		14,80,538	
iii)Overheads	1,00,000		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	3,93,561		19,632	
TOTAL		19,00,162		19,00,170

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-61

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Financial Approval of the SwarnaJayanti Fellowship to Dr. Gopaljee Jha

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	6,805		2,06,626	
Grant - In - Aid for				
i) Fellowship	-		-	
ii) Consumable/ Travel/ Contingencies /Equipment	-		-	
iii) Overhead Charges	-		-	
Interest Earned	15		179	
TOTAL		6,820		2,06,805

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	-		2,00,000	
ii) Consumable/ Travel/ Contingencies /Equipment	-		-	
iii) Overhead Charges				
Refund of Agency	-		-	
Recurring	6,820			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		6,805	
TOTAL		6,820		2,06,805

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO FRN 016750N Chartered Accountants

ANNEXURE-62

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Enhancing Sheath Blight disease tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	4,49,821		27,58,491	
Grant - In - Aid for				
i)Manpower	7,63,472		-	
ii) Consumable	10,96,176		-	
iii) Travel	-		-	
iv) Contingencies	50,000		-	
v) Fellowship	3,50,000		-	
vi) Overheads	2,40,352			
Interest Earned	6,926		11,826	
TOTAL		29,56,747		27,70,317

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	7,83,792		8,03,520	
ii) Consumable	11,84,151		14,46,861	
iii) Travel	88,885		43,212	
iv) Contingencies	46,114		26,903	
v)Fellowship	3,50,000		-	
vi) Overheads	2,40,352			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	2,63,453		4,49,821	
TOTAL		29,56,747		27,70,317

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-63

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Structure and Biochemical characterization of plant SLX1, a novel structure-specific endonuclease involved in DNA repair and recombination

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	85,447		11,76,165	
Equipment	4,743		4,743	
Grant - In - Aid for				
i) Equipment	-		-	
ii) Manpower	4,77,996		-	
iii) Consumable/ Travel/Contingencies	4,11,222		-	
(iv) SSR	-		-	
v) Overhead Charges	1,10,882		-	
Interest Earned	2,029		2,371	
TOTAL		**10,92,219**		**11,83,279**

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	5,20,760		6,92,216	
iii) Consumable/ Travel/Contingencies	3,60,426		4,00,873	
(iv) SSR	-			
v) Overhead Charges	1,10,882		-	
Refund of Agency				
Recurring	95,408			
Equipment	4,743			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		85,447	
Equipment	-		4,743	
TOTAL		**10,92,219**		**11,83,279**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-64

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Multi-omics study on the factors affecting the shelf-life of model nutricereal, foxtail millet (Setaria italica L.)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,75,553		8,53,884	
Grant - In - Aid for				
i) Manpower	6,11,180		4,67,000	
ii) Consumable/ Travel/Contingencies	7,63,614		2,18,000	
iii) Overhead Charges	75,206		65,000	
Interest Earned	2,580		4,615	
TOTAL		16,28,133		16,08,499

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	5,82,801		6,99,360	
ii) Consumable/ Travel/Contingencies	7,83,007		6,68,586	
iii) Overhead Charges	75,206		65,000	
Refund of Agency				
Recurring	1,87,119			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		1,75,553	
TOTAL		16,28,133		16,08,499

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-65

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Understanding genetic and molecular intricacies of high ambient temprature-regulated leaf size

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	31,247		2,77,634	
Equipment	2,559		2,559	
Grant- In- Aid for				
i) Equipment	-		-	
ii)Manpower	5,20,000		4,34,000	
iii) Consumable/Contingencies/Travel	3,81,608		4,67,800	
iv) SSR	-		-	
v)Overheads	98,392		98,200	
Interest Earned	350		889	
TOTAL		10,34,156		12,81,082

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii)Manpower	5,11,000		5,20,800	
iii) Consumable/Contingencies/Travel	3,72,341		6,28,276	
iv) SSR	17,172		-	
v)Overheads	98,392		98,200	
Refund of Interest Earned	10,832			
Refund to Agency				
Recurring	21,860			
Equipment	2,559			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		31,247	
Equipment	-		2,559	
		10,34,156		12,81,082

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-66

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Genetic dissection of 13-lipoxygenases to modulate JA biosynthesis for enhanced N, P, K deficiency tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,52,201		12,00,080	
Equipment	7,50,050		8,00,000	
Grant- in- Aid for				
i) Equipment	-		-	
ii)Manpower	4,61,280		-	
iii) Consumable/Contingencies/Travel	4,22,640		-	
iv) SSR	-		-	
v)Overheads	1,16,080		-	
Interest Earned	7,226		23,720	
TOTAL		19,09,477		20,23,800

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	7,11,200		49,950	
ii)Manpower	2,92,020		4,21,600	
iii) Consumable/Contingencies/Travel	4,72,628		6,49,999	
iv) SSR	10,000		-	
v)Overheads	1,16,080		-	
Refund of Interest Earned	32,680			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	2,36,019		1,52,201	
Equipment	38,850		7,50,050	
		19,09,477		20,23,800

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-67

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Construction and Functional Testing of Genome-wide CRISPR-Cas9 Library for Genome-editing of Seed Specific Genes in Indica Rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,59,228		11,28,612	
Equipment	726		4,58,898	
Grant- In- Aid for				
i) Equipment	-		-	
ii)Manpower	3,72,000		-	
iii) Consumable/Contingencies/Travel	4,63,500		-	
iv) SSR	-		-	
v)Overheads	1,14,500		-	
Interest Earned	2,826		4,205	
TOTAL		11,12,780		15,91,715

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		4,58,172	
ii)Manpower	3,83,921		3,13,720	
iii) Consumable/Contingencies/Travel	5,06,864		6,49,869	
iv) SSR	-		10,000	
v)Overheads	1,14,500		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	1,06,769		1,59,228	
Equipment	726		726	
		11,12,780		15,91,715

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-68

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
J.C.Bose Fellowship- Dr.Ashverya Laxmi

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	33,531		2,64,764	
Grant - In - Aid for				
i) Fellowship	3,00,000		1,40,000	
ii) Consumable/Travel/ Contingencies /Equipment	14,50,000		3,70,000	
iii)Overheads	1,00,000		1,00,000	
Interest Earned	848		882	
TOTAL		18,84,379		8,75,646

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	13,49,484		4,42,115	
iii)Overheads	1,00,000		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	1,34,895		33,531	
TOTAL		18,84,379		8,75,646

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-69

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
J.C.Bose Fellowship- Dr. Alok Krishna Sinha

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	1,87,900		40,817	
Grant - In - Aid for				
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	13,00,000		14,95,000	
iii)Overheads	1,00,000		1,00,000	
Interest Earned	3,985		513	
TOTAL		18,91,885		19,36,330

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Fellowship	3,00,000		3,00,000	
ii) Consumable/Travel/ Contingencies /Equipment	11,10,544		13,48,430	
iii)Overheads	1,00,000		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	3,81,341		1,87,900	
TOTAL		18,91,885		19,36,330

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-70

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Cytokinin regulation of shade avoidance response in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	4,048		18,553	
Grant - In - Aid for				
ii) Consumable/Travel/ Contingencies /Equipment	9,80,000		9,80,000	
ii)Overheads	80,000		80,000	
Interest Earned	98		106	
TOTAL		10,64,146		10,78,659

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
ii) Consumable/Travel/ Contingencies /Equipment	9,28,142		9,94,611	
ii)Overheads	80,000		80,000	
Refund of Interest Earned	434			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	55,570		4,048	
TOTAL		10,64,146		10,78,659

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-71

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

A novel miRNA-target module controlling rice grain size: Identification, confirmation and elucidation of its role in grain development and other seed-related traits, targeting crop improvement

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	5,81,521			
Equipment	4,98,590			
Grant- In- Aid for				
i) Equipment	-		4,98,590	
ii)Manpower	5,99,489		6,99,360	
iii) Consumable/Contingencies/Travel	9,00,000		9,00,000	
iv) SSR	-		10,000	
v)Overheads	1,41,511		1,41,510	
Interest Earned	12,362		16,748	
TOTAL		27,33,473		22,66,208

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	67,900		-	
ii)Manpower	4,45,560		2,52,056	
iii) Consumable/Contingencies/Travel	1,05,103		7,92,531	
iv) SSR	9,000		-	
v)Overheads	1,41,511		1,41,510	
Refund of Interest Earned	16,748			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	15,16,961		5,81,521	
Equipment	4,30,690		4,98,590	
		27,33,473		22,66,208

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-72

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Investigating the microRNA169: Nuclear Factor-YA module as a potential target for early maturation and yield enhancement under control and heat stress conditions in tomato

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	5,53,285			
Equipment	-			
Grant- In- Aid for				
i) Equipment	-		4,00,000	
ii)Manpower	6,99,000		6,99,000	
iii) Consumable/Contingencies/Travel	6,99,818		7,45,000	
iv) SSR	-		10,000	
v)Overheads	1,26,482		1,26,000	
Interest Earned	8,885		8,579	
TOTAL		20,87,470		19,88,579

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		4,00,000	
ii)Manpower	2,15,636		1,65,440	
iii) Consumable/Contingencies/Travel	5,94,112		7,43,854	
iv) SSR	-		-	
v)Overheads	1,26,482		1,26,000	
Refund of Interest Earned	8,579			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	11,42,661		5,53,285	
Equipment	-		-	
		20,87,470		19,88,579

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(RARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-73

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Metabolomics analysis of fungal endophyte induced systemic resistance in Solanum lycopersicum on herbivory by Spodoptera litura

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	4,41,573			
Equipment	8,920			
Grant- In- Aid for				
i) Equipment	-		3,14,000	
ii)Manpower	6,99,360		6,99,000	
iii) Consumable/Contingencies/Travel	8,29,767		8,23,000	
iv) SSR	-		10,000	
v)Overheads	1,30,683		1,30,000	
Interest Earned	1,316		6,001	
TOTAL		21,11,619		19,82,001

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		3,05,080	
ii)Manpower	6,28,860		3,19,600	
iii) Consumable/Contingencies/Travel	7,41,367		7,76,828	
iv) SSR	-		-	
v)Overheads	1,30,683		1,30,000	
Refund of Interest Earned	6,001			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	5,95,788		4,41,573	
Equipment	8,920		8,920	
		21,11,619		19,82,001

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-74

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Evolutionary developemnt (evo-devo) genetics study on stem cell fate and cell identtity transition between diverse Brassica oleracea morphotypes

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	3,99,118			
Equipment	8,32,011			
Grant- In- Aid for				
i) Equipment	-		8,97,459	
ii)Manpower	-		4,61,280	
iii) Consumable/Contingencies/Travel	-		4,95,420	
iv) SSR	-		10,000	
v)Overheads	-		1,12,800	
Interest Earned	3,079		8,254	
TOTAL		**12,34,208**		**19,85,213**

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	7,51,057		65,448	
ii)Manpower	3,64,023		90,720	
iii) Consumable/Contingencies/Travel	2,000		4,79,116	
iv) SSR	-		-	
v)Overheads	-		1,12,800	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	36,174		3,99,118	
Equipment	80,954		8,32,011	
		12,34,208		**19,85,213**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-75

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Molecular and genetic analysis of phosphorus (P) deficiency related phospholipases for enhanced P deficiency tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	12,26,968			
Equipment	65,000			
Grant- In- Aid for				
i) Equipment	-		65,000	
ii)Manpower	-		4,81,120	
iii) Consumable/Contingencies/Travel	-		7,30,060	
iv) SSR	-		10,000	
v)Overheads	-		97,820	
Interest Earned	12,088		5,788	
TOTAL		13,04,056		13,89,788

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	65,000		-	
ii)Manpower	-		-	
iii) Consumable/Contingencies/Travel	6,79,737		-	
iv) SSR	10,000		-	
v)Overheads	-		97,820	
Refund to Agency				
Recurring	5,49,319			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		12,26,968	
Equipment	-		65,000	
		13,04,056		13,89,788

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-76

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT
INSPIRE Faculty Award to Dr Abinaya Manivannan

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	7,45,300		-	
Grant- In- Aid for				
i) Manpower	15,24,000		15,00,000	
ii)Consumable/Contingency/ Travel/Equipment	6,54,987		6,65,000	
iii) Overhead Charges	34,473		35,000	
TOTAL		**29,58,760**		**22,00,000**

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	12,60,581		9,11,290	
ii)Consumable/Contingency/ Travel	8,11,520		5,08,410	
iii) Overhead Charges	34,473		35,000	
Limits lapsed to CNA				
Recurring	8,52,186			
CLOSING BALANCE				
With Bank in Saving A/c	-		7,45,300	
TOTAL		**29,58,760**		**22,00,000**

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-77

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Exploring the role of sugar metabolism and signaling for molecular intervention strategies against sheath blight disease of rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	9,34,199		-	
Grant - In - Aid for				
i)Manpower	-		8,38,200	
ii) Consumable	-		2,00,000	
iii) Travel	-		25,000	
iv) Contingencies	-		25,000	
v)Overheads	-		87,056	
TOTAL		9,34,199		11,75,256

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	6,80,999		1,54,001	
ii) Consumable	1,96,877		-	
iii) Travel	-		-	
iv) Contingencies	24,444		-	
v)Overheads	-		87,056	
Limits lapsed to CNA				
Recurring	31,879			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring			9,34,199	
TOTAL		9,34,199		11,75,256

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-78

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Investigating the synergistic epigenetic and post-transcriptional gene silencing mechanism involved in the regulation of flavonoid biosynthesis in banana (Musasp)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Grant- In- Aid for				
i)Manpower	6,99,360			
ii) Consumable/Contingencies/Travel	12,99,158			
iii) SSR	20,000			
iv)Overheads	1,44,482			
Interest Earned	12,842			
TOTAL		21,75,842		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	2,37,005		-	
ii) Consumable/Contingencies/Travel	11,69,689		-	
iii) SSR			-	
iv)Overheads	1,44,482		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	6,24,666		-	
		21,75,842		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-79

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Investigating the molecular basis of plant adaptation under the combinatorial stress of low nitrogen and high salinity

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	60,000			
ii)Manpower	6,99,360			
iii) Consumable/Contingencies/Travel	9,00,000			
iv) SSR	20,000			
v)Overheads	1,30,082			
Interest Earned	7,473			
TOTAL		18,16,915		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii)Manpower	4,00,564		-	
iii) Consumable/Contingencies/Travel	8,63,623		-	
iv) SSR			-	
v)Overheads	1,30,082		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	3,62,646		-	
Equipment	60,000		-	
		18,16,915		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-80

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT
Understanding the molecular secrets of antifungal and antibacterial activity of Burkholderia gladioli strain NGJ1 and utilization thereof for disease control in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i)Manpower	6,99,360			
ii) Consumable/Contingencies/Travel	11,00,000			
iii) SSR	10,000			
iv)Overheads	1,44,215			
Interest Earned	6,721			
TOTAL		19,60,296		-

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	4,62,480			
ii) Consumable/Contingencies/Travel	9,89,640			
iii) SSR				
iv)Overheads	1,44,215			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	3,63,961			
		19,60,296		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-81

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Understanding the molecular machanism behind the peripheral vascular bundle patterning in legume nodule

RECEIPT AND PAYMENT ACCOUNT FOR THE FERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	8,95,000			
ii)Manpower	5,20,800			
iii) Consumable/Contingencies/Travel	9,90,000			
iv) SSR	20,000			
v)Overheads	1,45,200			
Interest Earned	18,535			
TOTAL		25,89,535		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	67,945			
ii)Manpower	1,30,200			
iii) Consumable/Contingencies/Travel	9,60,311			
iv) SSR	-			
v)Overheads	1,45,200			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	4,58,824			
Equipment	8,27,055			
		25,89,535		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-82

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Identification and functional characterization of auxin transporters during pathogen responses through MAP Kinases

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	79,969			
ii)Manpower	4,81,120			
iii) Consumable/Contingencies/Travel	5,79,422			
iv) SSR	20,000			
v)Overheads	78,489			
Interest Earned	5,995			
TOTAL		12,44,995		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii)Manpower	-			
iii) Consumable/Contingencies/Travel	-			
iv) SSR	-			
v)Overheads	78,489			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	10,86,537			
Equipment	79,969			
		12,44,995		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-83

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Characterization of PRL1 function in plant defense responses against insect herbivory

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	10,00,000			
ii)Manpower	4,61,280			
iii) Consumable/Contingencies/Travel	5,00,000			
iv) SSR	10,000			
v)Overheads	1,17,302			
Interest Earned	10,037			
TOTAL		20,98,619		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii)Manpower	-			
iii) Consumable/Contingencies/Travel	-			
iv) SSR	-			
v)Overheads	1,17,302			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	9,81,317			
Equipment	10,00,000			
		20,98,619		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-84

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

To explore the prevalence and contribution of duplicate genes in rewiring the regulatory network following the whole genome triplication in crop plant cauliflower

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	4,99,700			
ii)Manpower	4,81,120			
iii) Consumable/Contingencies/Travel	5,80,100			
iv) SSR	35,000			
v)Overheads	94,080			
Interest Earned	6,171			
TOTAL		16,96,171		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii)Manpower	-			
iii) Consumable/Contingencies/Travel	2,24,693			
iv) SSR	-			
v)Overheads	94,080			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	8,77,798			
Equipment	4,99,700			
		16,96,171		

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-85

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Investigation of the role of AtSKIP31-JAZ-ABITFs module in integrating ABA-JA signaling for the acquisition of seed desiccation tolerance and seed vigor in Arabidopsis thaliana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	2,45,334			
ii)Manpower	6,99,360			
iii) Consumable/Contingencies/Travel	8,80,000			
iv) SSR	20,000			
v)Overheads	1,66,780			
Interest Earned	1,901			
TOTAL		20,13,375		

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii)Manpower	-			
iii) Consumable/Contingencies/Travel	9,093			
iv) SSR	-			
v)Overheads	1,66,780			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	15,92,168			
Equipment	2,45,334			
		20,13,375		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-86

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Deciphering role(s) of effectors, post-translational modification and transcriptional regulation during effector triggered immunity in multi-host response against Fusarium disease in worm and chickpea

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i)Manpower	7,29,000			
ii) Consumable/Contingencies/Travel	11,00,000			
iii) SSR	10,000			
iv)Overheads	1,46,000			
Interest Earned	1,904			
TOTAL		19,86,904		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i)Manpower	-			
ii) Consumable/Contingencies/Travel	-			
iii) SSR	-			
iv)Overheads	1,46,000			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	18,40,904			
		19,86,904		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-87

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB PROJECT

Deciphering the abiotic stress-induced tRF-mRNA regulatory network in Arabidopsis and rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant- In- Aid for				
i) Equipment	5,50,000			
ii)Manpower	6,99,360			
iii) Consumable/Contingencies/Travel	11,00,000			
iv) SSR	50,000			
v)Overheads	1,59,640			
Interest Earned	1,065			
TOTAL		25,60,065		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-			
ii)Manpower	-			
iii) Consumable/Contingencies/Travel	-			
iv) SSR	-			
v)Overheads	1,59,640			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	18,50,425			
Equipment	5,50,000			
		25,60,065		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(RARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-88

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB-(NPDF) PROJECT

Functional characterization of myrosinases encoding genes for enhanced plant defence in Brassica crop

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	8,36,531		-	
Grant- In- Aid for				
i) Manpower	-		8,18,400	
ii)Consumable/Contingency /Travel	-		2,00,000	
iii) Overhead Charges	-		1,00,000	
Interest Earned	160		5,609	
TOTAL		8,36,691		11,24,009

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,46,800		1,71,600	
ii)Consumable/Contingency/ Travel	1,83,815		15,878	
iii) Overhead Charges	-		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c	6,076		8,36,531	
TOTAL		8,36,691		11,24,009

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

UDIN: 24099172BKDKBA8106
Dt 24/8/24

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-89

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB(NPDF) PROJECT

Unravelling the key genomic regions/QTLs associated with salt tolerance traits in Lentil (Lens culinary Medikus) using Genotyping-by-Sequencing approaches

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	8,52,516		-	
Grant- In- Aid for				
i) Manpower	-		8,18,400	
ii)Consumable/Contingency /Travel	-		2,00,000	
iii) Overhead Charges	-		1,00,000	
Interest Earned	166		5,716	
TOTAL		8,52,682		11,24,116

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	6,46,800		1,71,600	
ii)Consumable/Contingency/ Travel	1,99,579		-	
iii) Overhead Charges	-		1,00,000	
CLOSING BALANCE				
With Bank in Saving A/c	6,303		8,52,516	
TOTAL		8,52,682		11,24,116

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-90

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SERB(NPDF) PROJECT

Investigating flavonoid-specific MATE transporters and their role in banana

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	-			
Grant- In- Aid for				
i) Manpower	5,96,433			
ii)Consumable/Contingency /Travel	1,00,000			
iii) Overhead Charges	50,000			
Interest Earned	552			
TOTAL		7,46,985		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-			
ii)Consumable/Contingency/ Travel	-			
iii) Overhead Charges	-			
CLOSING BALANCE				
With Bank in Saving A/c	7,46,985			
TOTAL		7,46,985		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER
Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-91

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

ICAR Project

ICAR-NASF Development ofsustainable management tools for the invasive pest, Fall Armyworm Spodoptera frugiperda(J.E. Smith) in maize

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	52,011		5,86,394	
Grant - in - Aid for				
i) Manpower	3,00,280		-	
ii) Consumables	-		-	
iii) Travel/Workshop	-		-	
iv) Contingencies	-		-	
v) Overheads	-		-	
Interest Earned	-		1,375	
TOTAL		3,52,291		5,87,769

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,00,280		2,17,000	
ii) Consumables	-		3,00,000	
iii) Travel			18,758	
iv) Contingencies	-		-	
v) Overheads	-		-	
Refund to Agency	52,011			
CLOSING BALANCE				
With Bank in Saving A/c	-		52,011	
TOTAL		3,52,291		5,87,769

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-92

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

EMBO Global Investigator Network Grant

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	16,611		6,39,160	
Grant - In - Aid for				
Research Grant	12,43,851		-	
Interest Earned	265		437	
TOTAL		12,60,727		6,39,597

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Research Expenditure	6,30,881		6,22,986	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	6,29,846		16,611	
TOTAL		12,60,727		6,39,597

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-93

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

Sree PVF "Novel and cost effective technology to prevent post-harvest losses of fruits"

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — **AMOUNT-IN-RUPEES**

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	13,98,090		20,31,928	
Equipment	737		1,00,000	
Grant - In - Aid for				
i) Equipment	-		-	
ii)Consumables	4,00,000		5,08,576	
iii)Manpower	1,00,000		1,27,144	
iv)Travel	1,00,000		1,65,840	
v)Contingency	1,55,280		1,93,480	
vi) Field Trail/Front Line Demonstrations	1,00,000		1,93,480	
vii) Awareness Program	1,00,000		1,38,200	
viii) Overhead	44,720		55,280	
Interest Earned	2,073		14,755	
TOTAL		24,00,900		35,28,683

PAYMENTS — **AMOUNT-IN-RUPEES**

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		99,263	
ii)Consumables	14,59,513		13,67,747	
iii)Manpower	2,57,560		-	
iv)Travel	77,553		2,45,544	
v)Contingency	3,76,753		3,17,236	
vi) Field Trail/Front Line Demonstrations	59,606		44,786	
vii) Awareness Program	46,343		-	
viii) Overhead	44,720		55,280	
Refund to Agency				
Recurring	78,115			
Equipment	737			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	-		13,98,090	
Equipment	-		737	
TOTAL		24,00,900		35,28,683

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-94

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DRDO PROJECT

Fruit composition profile of brinjal, capsicum and tomato varieties grown under different crop growth conditions

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	5,02,471		-	
Grant- In- Aid for				
i) Manpower	-		5,82,800	
ii)Contingency	-		10,000	
iii) Others	-		3,97,200	
			-	
Interest Earned	345		3,369	
TOTAL		5,02,816		9,93,369

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	3,10,827		2,71,973	
ii)Contingency	1,66,106		6,411	
iii) Others	-		2,12,514	
Refund to Agency	25,883			
CLOSING BALANCE				
With Bank in Saving A/c	-		5,02,471	
TOTAL		5,02,816		9,93,369

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-95

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DRDO PROJECT

Phytochemical Composition of Organic Fruits and Vegetables Cultivated in the high altitude region

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	-		-	
Grant- In- Aid for				
i) Manpower	-		-	
ii)Contingency	9,95,000		-	
iii) Others	-		-	
			-	
Interest Earned	793		-	
TOTAL		9,95,793		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		-	
ii)Contingency	-		-	
iii) Others	-		-	
CLOSING BALANCE				
With Bank in Saving A/c	9,75,893		-	
Receivable from Income Tax Dept.	19,900			
TOTAL		9,95,793		-

Note: An amount of ₹19,900/- is deducted as TDS and is receivable from Income Tax Dept.

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-96

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

Increasing nitrogen use efficiency via modulation of phytoglobins under Ignite Life Science Foundation Research Grant

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
Grant - In - Aid for				
i) Equipment	80,000			
ii)Consumables	19,00,000			
iii)Manpower	2,74,000			
iv)Travel	-			
v)Contingency	-			
vi) Overhead	50,000			
Interest Earned	2,972		-	
TOTAL		23,06,972		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	72,498			
ii)Consumables	11,70,851			
iii)Manpower	2,36,270			
iv)Travel	-			
v)Contingency	-			
vi) Overhead	50,000			
	-			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	7,69,851			
Equipment	7,502			
TOTAL		23,06,972		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-97

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT

INSA Project of Dr Niranjan Chakraborty

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring	-			
Grant- In- Aid for				
i) Staff Fund	3,60,000			
ii) Research Fund	1,00,000			
Interest Earned	4			
TOTAL		4,60,004		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff Fund	3,60,000			
ii) Research Fund	99,856			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	148			
TOTAL		4,60,004		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(RARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-98

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DBT PROJECT
INSA Project of Dr Ashutosh Pandey

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Recurring				
Grant- In- Aid for				
i) Staff Fund	60,000			
ii) Research Fund	-			
Interest Earned	180			
TOTAL		60,180		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff Fund	20,000			
ii) Research Fund	-			
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	40,180			
TOTAL		60,180		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-99

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

SWATI PORTAL

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c				
Grant-in-Aid	7,60,000			
TOTAL		7,60,000		-

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Misc Expenditure	4,42,480			
CLOSING BALANCE				
With Bank in Saving A/c	3,17,520			
TOTAL		7,60,000		-

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-100

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

IPAFNH PSI 2023

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	-		-	
Grant-in-Aid				
Sponsorship Fees	43,72,811			
Registration Fees	12,02,597			
Others (PSI & NIPGR)	4,13,888			
			-	
TOTAL		59,89,296		-

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Organising Expenses (Boarding & Lodging,Printing,Stationery & other expenses)	40,29,050		-	
			-	
CLOSING BALANCE				
With Bank in Saving A/c	19,60,246		-	
TOTAL		59,89,296		-

Note: An amount of ₹70,000/- is deducted as TDS and is receivable from Income Tax Dept.

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)	(SANDEEP DATTA)	(DR. SUBHRA CHAKRABORTY)	(PARUL GOYAL)
FINANCE OFFICER	CONTROLLER OF ADMINISTRATION	DIRECTOR	PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-101

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST INSPIRE Fellowship

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	8,30,184		14,17,393	
Amt.received from DST for Research Fellowships & Associatships	35,87,208		22,69,965	
Interest Earned	-		4,132	
TOTAL		44,17,392		36,91,490

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associatships	32,10,868		28,61,306	
	-		-	
Limits lapsed to CNA				
Recurring	12,06,524			
CLOSING BALANCE				
With Bank in Saving A/c	-		8,30,184	
TOTAL		44,17,392		36,91,490

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP BATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-102

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

FELLOWSHIP GRANT CSIR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	6,65,460		5,61,357	
Amt.received from CSIR for Research Fellowships & Associatships	-		6,09,779	
TOTAL		6,65,460		11,71,136

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associatships	2,56,180		4,73,101	
Refund to Agency	-		32,575	
CLOSING BALANCE				
With Bank in Saving A/c	4,09,280		6,65,460	
TOTAL		6,65,460		11,71,136

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP PATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-103

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

FELLOWSHIP GRANT DBT

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	17,07,537		13,26,831	
Amt.received from DBT for Research Fellowships & Associateships	1,06,15,075		1,11,19,386	
TOTAL		1,23,22,612		1,24,46,217

PAYMENTS				AMOUNT-IN-RUPEES
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	1,10,19,480		1,07,09,513	
Refund to Funding Agency	1,67,370		29,167	
CLOSING BALANCE				
With Bank in Saving A/c	11,35,762		17,07,537	
TOTAL		1,23,22,612		1,24,46,217

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-104

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

FELLOWSHIP GRANT ICMR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	32		32	
Amt.received from ICMR for Research Fellowships & Associateships	-		-	
TOTAL		32		32

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	-		-	
Refund to Agency	-		-	
CLOSING BALANCE				
With Bank in Saving A/c	32		32	
TOTAL		32		32

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-105

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

FELLOWSHIP GRANT AIRTF

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	5,000		5,000	
Amt.received from ICMR for Research Fellowships & Associateships	-		-	
TOTAL		5,000		5,000

PAYMENTS			AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Amount paid for Research Fellowships & Associateships	-		-	
Refund to Agency	-		-	
CLOSING BALANCE				
With Bank in Saving A/c	5,000		5,000	
TOTAL		5,000		5,000

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO. FRN 016750N Chartered Accountants

ANNEXURE-106

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

RECEIPT AND PAYMENT ACCOUNT OF NIPGR EMPLOYEES CONTRIBUTORY PROVIDENT FUND ACCOUNT

FOR THE PERIOD 1st APRIL 2023 TO 31st MARCH 2024

RECEIPTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
In Savings Account	1,18,63,340		58,649	
In Fixed Deposit	10,07,52,496		9,76,72,253	
SUBSCRIPTIONS				
(i)Amount of Regular Subscription	67,46,000		70,62,000	
(ii) Refund of advances received from Subscribers	-		-	
Amount received from NIPGR Core grant to meet Institute's liability towards Contribution & Deficit of Interest	46,20,696		6,41,182	
INTEREST EARNED				
Savings Account/ Investments	41,90,613		95,19,951	
Other Receipts	-		-	
TOTAL		12,31,72,345		11,49,54,235

PAYMENTS — AMOUNT-IN-RUPEES

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
Advances paid to Subscribers	70,00,000		6,00,000	
Part final withdrawal	-		-	
Other Charges	-		-	
Full & Final payment of Subscribers	1,06,14,747		17,38,399	
CLOSING BALANCE				
In Savings Account	70,27,872		1,18,63,340	
In Fixed Deposit	10,36,30,226		10,07,52,496	
TOTAL		12,31,72,345		11,49,54,235

For GOYAL PARUL & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 016750N

(VINEETA SHARMA)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(PARUL GOYAL)
PARTNER

Membership No.099172

GOYAL PARUL & CO FRN 016750N Chartered Accountants

COMMENTS ON AUDITOR'S REPORT ON ACCOUNTS FOR THE YEAR ENDED MARCH 31,2024

No comment in the Auditor's report has been included. The statement made in the report are informative items. Keeping in view of NIL observation on the Annual Accounts for the Financial Year 2023-24, the comment may be considered as Nil for the purpose of record.

(Vineeta Sharma)	**(Sandeep Datta)**	**(Dr. Subhra Chakraborty)**
Finance Officer	Controller of Administration	Director

National Institute of Plant Genome Research

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