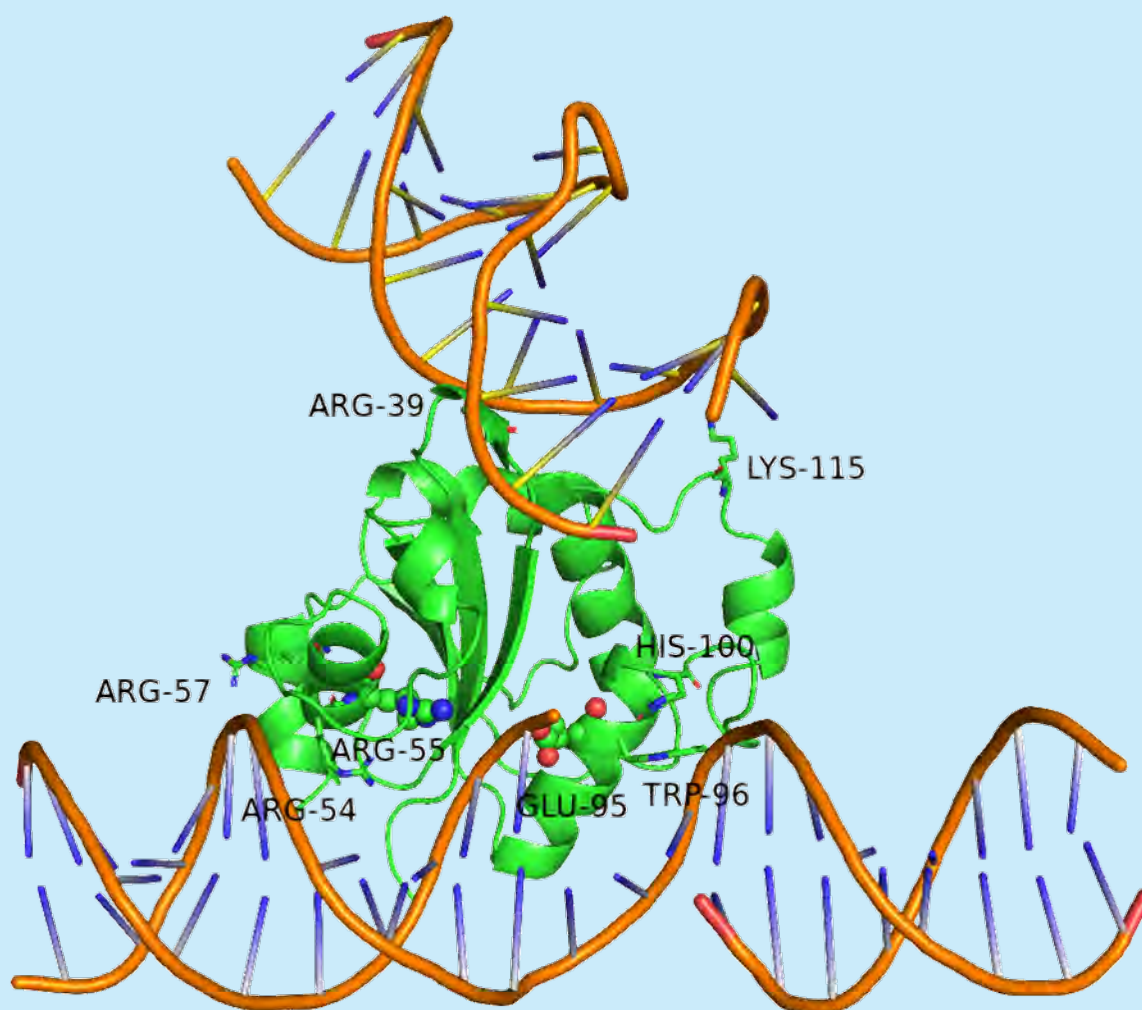




ANNUAL REPORT 2021-22



National Institute of Plant Genome Research, New Delhi

A DNA binding model depicting the catalytic domain of *At*-HIGLE (PDB: 7WME) from *A. thaliana* interacting with a replication fork. The bound DNA was modelled by superimposing catalytic domain of *At*-HIGLE with DNA bound structure of R.Eco29kI (PDB: 3NIC) and DNA bound structure of *Thielavia terrestris* Slx1-Slx4^{CCD3} complex (PDB: 6SEI)



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

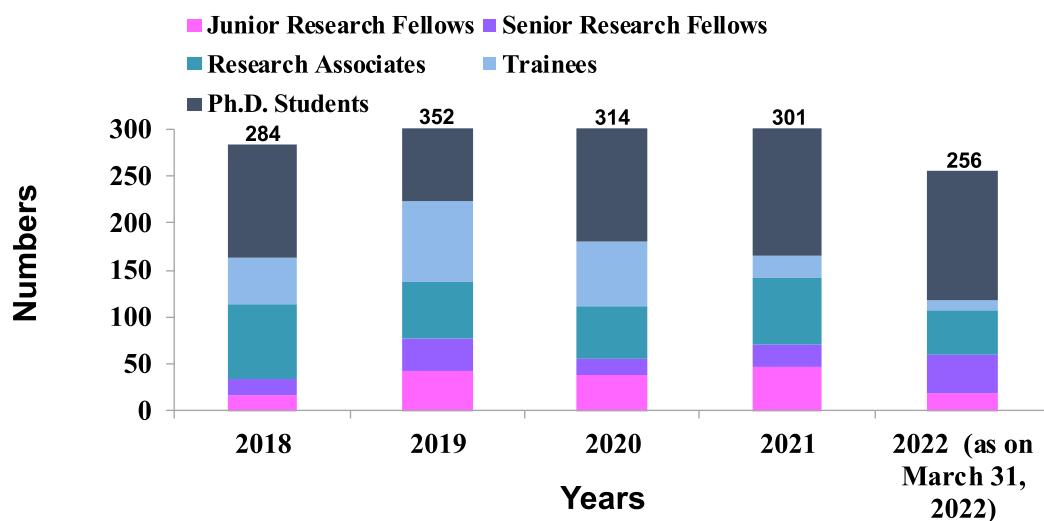
Mission

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
5. Computational and structural biology
6. Nutritional traits in crops

Human Resource Development



Achievements

Ph.D. awarded:	[165 (19*)]	Publications:	[1267 (117*)]
Patents and products:	[68 (6*)]	Lectures delivered:	[1185 (122*)]
Lectures organized:	[210 (42*)]	Conference and workshops:	[101 (6*)]
Students visit:	[80 (2**)]	Awards and recognitions:	[284 (39*)]

[2021-22 (*as on March, 2022; **Virtual Educational Tour during 2021-22)]

National Institute of Plant Genome Research, New Delhi



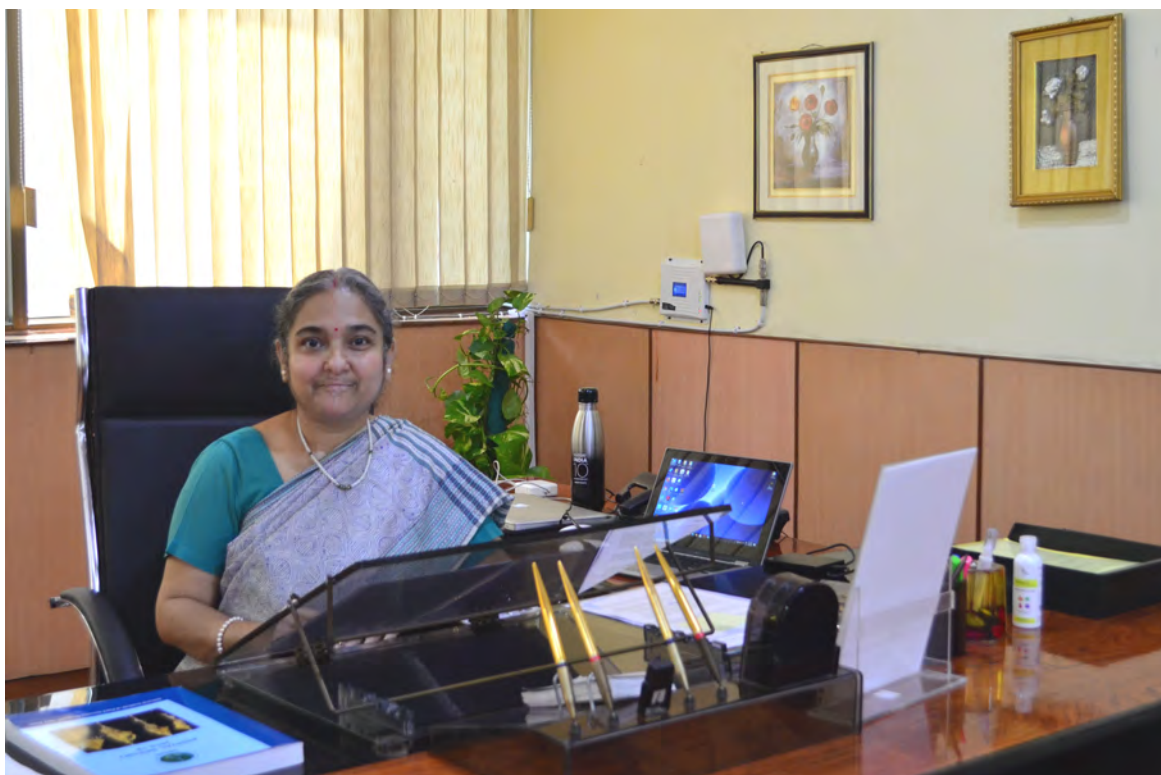
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Mandate

- 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 2021-March 2022. Starting from the inception in 1998 and 24 years of its existence, National Institute of Plant Genome Research (NIPGR) research is focused both in basic science and translational work. Today NIPGR's vision is to be recognized as a centre of excellence not only in the Asia-Pacific region, but also among top plant science institute in the world. To fulfil the vision, the mission is to continue to call for research and innovation in plant biology to have transformative impact on society and nation building by undertaking research of high caliber in plant molecular biology and to seek its applications of the same. 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 host-pathogen interactions, plant immunity, computational & structural biology, nutritional genomics and emerging areas covering cutting-edge research. Currently, the Institute has 31 scientists, who are leading independent groups covering cutting-edge research in six defined areas. To achieve its objectives, the Institute ran 38 intra-institutional collaborative programs, 36 national collaborations, 6 international collaborations. 19 students have been conferred with Ph.D. degree, and 31 external scientists/students were trained in the institute. The academic year 2021-2022 continued to be highly productive and a number of high-quality research articles were published, many in high impact journals. NIPGR published 117 research papers in the reporting period and filed 6 patents with 4 granted patents. I would like to highlight below some of the recent achievements of the Institute.

In the field of genome analysis and molecular breeding, utilizing the integrated approach of QTL-Seq and candidate gene-based association mapping, two QTLs (0.94 Mb on Linkage Group (LG)5 and 1.16 Mb on LG6) were identified for seed protein content. Furthermore, a tightly associated marker affecting *CaREN1* with phenotypic variation in SSP explained of 23%. In another study, an integrated genomics-assisted breeding strategy involving association mapping, fine mapping, map-based cloning, and molecular haplotyping in a introgression line-based association panel and mapping population of chickpea, identified a bHLH transcription factor gene *CabHLH10* underlying a major quantitative trait locus (QTL), along with its derived natural alleles and haplotypes governing yield under drought stress. These findings facilitate translational genomics for crop improvement and the development of genetically tailored, climate-resilient, high-yielding chickpea cultivars.

In the area of Plant development and signaling, institute has major programs in root development, seed development, flower development, photosynthetic efficiency and photomorphogenesis. Sucrose and auxin are well known determinants of root system architecture (RSA), but the factors that converge the signaling pathways evoked by these two critical factors during root development are poorly understood. In a study, the previously unexplored role of mediator subunit 17 (MED17) in RSA and its involvement in the transcriptional regulation of sucrose and auxin signaling in Arabidopsis has been elucidated. This study established MED17 as an important point to connect sucrose and auxin signaling by forming a complex with E2FA/B. MED17 also activates root meristem by occupying the promoter of cell-cycle genes MCM5/7, ETG1, ORC6 and so regulates their transcription. Thus, MED17 was found to play important role in relaying transcriptional signal from sucrose to auxin-responsive and cell-cycle genes to regulate primary and lateral root development. Another study, suggested that the compromised root growth physiology of NH₄⁺ grown roots depend on Fe availability and low levels of it promoted growth by regulating the nitrogen metabolism such as the activities of enzymes (GS-GOGAT pathway) which are involved in NH₄⁺ assimilation. Not only the enzyme activities of the N assimilation pathway, but low levels of Fe were able to promote shoot to root NH₄⁺ partitioning which is considered a key adaptive strategy in plants to optimize their growth. Analysis of nitrate transporter 1.1 (pNRT1.1-GUS), also suggested that Fe levels can modulate the N transporter genes. Nonetheless, the data provide evidence that root growth and meristem maintenance during NH₄⁺ toxicity depends on BR signaling. Cellular and genetic understanding of rice leaf size regulation is limited, despite rice being the staple food of more than half of the global population. A very recent study in Journal of Experimental Botany, using comparative transcriptomics, gibberellic Acid (GA) quantification, and leaf kinematics of the contrasting accessions suggested the involvement of GA, cell cycle, and GRFs in the rice leaf size regulation. Downstream to GA, OsGRF7 and OsGRF8 function for controlling cell division to determine the rice leaf length. Spatial control of cell division to determine the division zone size mediated by GA and downstream OsGRF7 and OsGRF8 explained the leaf length differences between the cultivated and wild rice. This mechanism to control rice leaf length might have contributed to optimizing leaf size during domestication. Towards flower development, LDL1 mediated regulation of flowering was found to be dependent on MADS AFFECTING FLOWERING 4 (MAF4) and MAF5 floral repressors. Further it was shown that LDL2 negatively regulates the expression of MAF4 and MAF5 redundantly with LDL1. Both LDL1 and LDL2 interact with an autonomous flowering pathway protein, FLOWERING LOCUS VE (FVE), to regulate the floral transition and thus could be a part of the FVE-corepressor complex. We show that MAF5 interacts with other floral repressors FLC and SHORT VEGETATIVE PHASE (SVP) and repress the

expression of FT to delay floral transition. These results deepen the mechanistic understanding of LDL1/LDL2-FVE mediated floral transition in Arabidopsis. Anaerobic germination is an important feature of rice. Yet another recent study in Plant Cell & Environment revealed that nitrite driven phytoglobin-NO cycle and AOX are crucial players in anaerobic germination and growth of deepwater rice. Sugar as a signaling molecule has attracted lots of attention. Another study demonstrated that MAP kinase signaling is essential for sensitivity to higher concentrations of D-Glc in Arabidopsis and provided new insight into the involvement of MAP kinases in association with G-proteins that might regulate sugar signaling and sugar responsive growth and development in Arabidopsis.

Towards understanding plant adaptation to abiotic stresses, Institute is focusing on drought, high temperature, submergence and hypoxia, and seed aging and oxidative stress. Dehydration is a major impediment for crop yield. A very recent study published in Physiologia Plantarum using proteomics from dehydration responsive chickpea chloroplast proteome identified 14 CaPDZs proteins, and phylogenetic analysis revealed that these belong to photosynthetic eukaryotes. Sequence analyses of CaPDZs indicated that CaPDZ1 is a unique member, which harbors a TPR domain, besides a PDZ domain. Functional characterization and the performance of CaPDZ1-OE seedlings under dehydration, clearly implicate its function in assembly and/or repair of PSII, through interactions with PS associated chloroplast proteins. The interaction of CaPDZ1 with other PSs residents may indicate diverse roles in stress tolerant mechanisms, besides its action as PSII assembly factor, which accentuate the multiple roles of CaPDZ1. Lignin deposition in the secondary cell wall in root vascular tissue is a hallmark of drought response in plant. Another study showed that miR397 expression is downregulated in chickpea root under natural drought in soil. Chickpea miR397 (CamiR397) targets LAC4 and LAC17. Ectopic overexpression of CamiR397 in chickpea decreased root lignin deposition. Leaf relative water contents of the transgenic lines were lower than the control wild type plants. Reduction of CamiRNA397 activity by expressing a short tandem target mimic (STTM) construct increased root lignin deposition. The CamiR397 overexpressing lines were more susceptible to *Macrophomina phaseolina*, the causative agent of chickpea dry root rot while, the STTM-plant showed significant tolerance to *M. phaseolina* infection. Overall, the result showed a regulatory role of CamiR397 in abiotic and biotic stress. In another recent publication in Planta paper, comparative expression profiles of HSFs in heat stress (HS) tolerant/sensitive tomato cultivars revealed cultivar-biased regulation of an activator (HSFA7) and a repressor (HSFB4a) HSF. Functional characterization of HSFA7 and HSFB4a in tolerant-sensitive cultivar pair by VIGS and transient overexpression showed them as a positive and a negative regulator of HS tolerance, respectively. Promoter:reporter assays and promoter sequence analyses suggested HS-mediated transcriptional control of both the HSF genes in the contrasting cultivars. Moreover, HSFB4a was identified as a target of miR4200. Transient MIR4200-effector:HSFB4a-reporter assays showed miRNA dependent target downregulation as well as chelation of miR by short-tandem-target-mimic increased target abundance. Thus, it may be speculated that alleviation of HSFB4a and increased HSFA7 levels regulate thermotolerance in the tolerant cultivar by controlling downstream HS responsive genes.

In the field of plant pathogen/microbe/insect interactions and plant immunity, NIPGR is working towards understanding plant-virus, plant-fungus-bacteria, plant-fungal, plant-insect and plant-beneficial microbe interactions. Cell compartmentalization into different subcellular organelles is a dynamic attribute conserved in eukaryotes, including plants, wherein nucleus, the regulatory hub

house genetic information essential for the regulated expression of proteins and a repository of macromolecules those serve as the modulators of various signalling networks in response to extracellular stimuli, including pathogen stress. A very recent study using comprehensive nuclear transcriptomic, proteomic, phosphoproteomic and interactomics analyses of resistant chickpea cultivar against multi-host pathogen *Fusarium oxysporum* identified several potentially interesting IRFs, IRPs and IRPPs of biological significance. Among all, a nuclear localized immune responsive factor, IRF1 was identified, which showed increase in abundance in resistant chickpea cultivar and possibly impart immunity against vascular wilt disease by interacting with its close homologs as well as two other immune responsive proteins IRF 11 and IRF12. Bacterial mycophagy is an important trait which can be exploited for control of important fungal diseases, including sheath blight disease, caused by *Rhizocotonia solani* in rice. Another recent study published in Environmental Microbiology demonstrated that alternative sigma factors (sigma 54) i.e., RpoN1 and RpoN2 are required for mycophagous ability of *B. gladioli* strain NGJ1 on *R. solani*. NGJ1 encodes two copies of rpoN (rpoN1 and rpoN2) and both of them are upregulated during mycophagy. Mutation in either one of rpoNs rendered the mutant bacterium defective in foraging over *R. solani*, whereas complementation restores mycophagy. RpoNs are also required by NGJ1 for fungal killing and efficient biocontrol of *R. solani* in rice. The study emphasizes that RpoNs promote mycophagy through transcriptional regulation of T3SS, nitrogen assimilation, and cellular transport related functions in NGJ1. In a previous study, a genome-wide analysis of SIATG genes in tomato (*Solanum lycopersicum*) was carried out. Recently, SIATG8f was found to interact with the ToLCNDV TrAP and mediate its degradation by the autophagy pathway. The results suggested that autophagy is involved in the degradation of the ToLCNDV protein TrAP as a defense strategy to inhibit virus infection in the host.

In the area of computational and structural biology, NIPGR is studying in depth the ecosystem conservation, bioinformatics, genomics and plant biotechnology, structural biology with specific emphasis on DNA repair and recombination in plants. The major highlight came from a recent study towards designing and developing knowledge-based resource (SCIPDb) to enable automated discovery of novel genes and pathways involved in plant responses to combined stress tolerance. Further, the study identified *CBP60g/SARD1* complex to be a major regulator in drought and bacterial resistance in Arabidopsis published in Plant Cell & Environment paper. Further, the Institute also has developed few databses and toolkits for plant biology namely, MedProDB, tncRNA. Prions can be considered as molecular memory devices, generating reproducible memory of a conformational change. In yet another study in rice, important insights into the anticipated role of prions in stress and memory was elucidated, paving the way for more focused studies for characterizing the role of identified PrLPs in memory acclimation. In yet another study, based on the structure and biophysical characterization the role of plant SLX1 in the resolution of HJ and processing of other branched DNA intermediates was elucidated. The work shed lights on the autoinhibitory regulation of the promiscuous catalytic activity of plant SLX1 during DNA repair and recombination.

In the area of nutritional genomics focus has been given both towards plant nutrition and human nutrition from plant-based diet. Towards nutritional improvement, in a Plant Cell & Environment paper, GTR1 and GTR2 transporters, the components of the source to sink translocation network of glucosinolates, had been found to play distinctive roles in shaping tissue-specific accumulation of glucosinolates in *Brassica juncea*. Using RNAi-based approach, the distinctive roles of *B. juncea*

GTRs in shaping tissue-specific accumulation of glucosinolates and potential of manipulating *BjuGTR2* for enhanced nutrition and plant defence was highlighted. Besides, a large number of CRISPR/Cas9 lines targeting multiple *BjuGTR* homologs have been developed in the native *B. juncea* and are being analyzed to investigate the key role of glucosinolate transporters, GTR1/GTR2 in the oilseed Brassica crop. In yet another study, two proanthocyanidin-specific R2R3 MYB activators (MaMYBPA1-MaMYBPA2) and four repressors (MaMYBPR1–MaMYBPR4) were functionally characterized to elucidate the mechanisms underlying the transcriptional regulation of proanthocyanidin biosynthesis in banana.

Apart from high quality research, publications and manpower training, the Institute is also striving hard to translate its findings. Large seeded, high yielding, high protein content Improved JG11 and KAK2, desi and kabuli chickpea varieties, respectively using ABC transporter gene have reevaluated second year of testing (Advanced Varietal trial 2; AVT-2) in 2021-2022 at 16 locations in India. Similarly, a semi-dwarf and optimum plant width chickpea variety using Basic helix loop helix gene 121 and a drought tolerant high yielding improved JG 11 chickpea variety using Basic helix loop helix gene 10 have been reevaluated in AVT-2 in 2021-2022 at 16 locations in India. Furthermore, an early flowering and high yielding (high flower number) chickpea variety developed using CaCLV3 (CLAVATA 3) gene using integrated genomics assisted breeding also have undergone AVT-1 in 2021-2022 at 16 locations in India. NIPGR has earlier developed transgenic *B. juncea* lines having seed glucosinolates as low as 11.26 $\mu\text{mol/g DW}$ through RNAi-based targeted suppression of BjMYB28, a R2R3-MYB transcription factor family gene involved in aliphatic glucosinolate biosynthesis, which had undergone event selection trial in collaboration with UDSC. The near equivalence analysis has now been completed that established a promising low glucosinolate mustard BjMYB28-RNAi line towards developing canola quality mustard. Earlier towards exploring the role of NO in hypoxia and fruit quality, furthering the molecular lead from the basic studies, under a BIRAC BIG grant an engineered device for increasing shelf-life of fruits and vegetables using hypoxia induced nitric oxide prototypes were developed. Now, the device has been further engineered for use in the transportation and storage godowns.

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, for example, the release of first ever PAN genome SNP array of rice and chickpea to the nation by the Hon'ble Minister of State (IC) of the Ministry of S&T and Earth Sciences to mark the 75th year of Indian Independence, in celebration of Azadi Ka Amrit Mahotsav. These would serve National Molecular Breeding Effort in order to drive crop improvement programme and plant biotechnology research, which would enormously help the national and international researchers in the field. 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. Efforts are on to fully utilize the newly created platforms, strengthen the existing facilities and functionalize the National Genomics and Genotyping Facility (NGGF) in PPP mode. The First NIPGR Translational Centre at Bulandshahr was also launched by the Hon'ble Minister of State (IC) of the Ministry of S&T and Earth Sciences to mark the 75th year of Indian Independence, in celebration of Azadi Ka Amrit Mahotsav. Currently, the efforts are ongoing to develop the Speed Breeding and High Throughput Phenotyping platforms. Institute has initiated the development of Plant Computational and Bioinformatics

Facility, and expansion of Central Instrumentation Facility to give fillip to the research work. The Institute has launched a National Mission Mode Program on Nutritional Improvement of Digestible Protein Content and Quality in Rice in collaboration with ICAR and ICMR institutes. During the reporting period, the Institute has hosted several National/International Conferences/Workshops/Symposia. As part of NIPGR webinar series, Institute organized webinars on “Decoding the genomics with big data analytics” and “Predictive Modelling and AI for Biodiversity”. To celebrate International Women's Day 2022 a webinar was organized on "United We Are". Many distinguished scientists and a large number of school/college students from all around the country and the world interacted with the Institute researchers through online mode. Further, an online Portal "SWATI" (Science for Women: A Technology and Innovation) to serve as a gateway to view the expertise and contributions of Indian Women in Science, was inaugurated by the Secretary, DBT to mark the 75th year of Indian Independence, in celebration of Azadi Ka Amrit Mahotsav. As a public outreach, the institute has organized twenty-four webinars under 'Science Setu' as a part of Azadi ka Amrit Mahotsav to commemorate "75 years of India's Independence" which has benefitted college students across the nation. The Institute has also participated in IISF 2021. As part of iConnect Event under ANB, the Institute organized a webinar on “Nutriomics for Better Health” which included talks by eminent scientists, poster presentations, exhibition of related technologies, etc. 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 had 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 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 2021-22 under six major research areas of the Institute are given below:

A. Genome analysis and molecular breeding

Dissecting the genetic and molecular basis of seed protein content (SPC) in chickpea (*Cicer arietinum* L.)

(PI: Bhatia Sabhyata)

Utilizing the integrated approach of QTL-Seq and candidate gene-based association mapping, the genomic regions and genes responsible for seed protein content (SPC), a major quality trait in chickpea were identified. Whole Genome Re-sequencing based QTL-Seq analysis of bulked RILs from a mapping population contrasting for SPC led to identification of two QTLs (0.94 Mb on Linkage Group (LG)5 and 1.16 Mb on LG6) encompassing three SNPs displaying the highest Δ SNP index. These highly significant SNPs and their associated genes were validated in 211 chickpea mini-core accessions varying in seed protein content that revealed a tightly associated marker affecting *CaREN1* with phenotypic variation explained of 23%. This SNP was subsequently converted into a cost-effective allele specific PCR based marker that could be utilized for rapid screening of SPC during marker assisted breeding. Further, *in planta* functional validation via knockdown of *CaREN1* led to significant reduction in SPC of chickpea. This decrease in seed protein is likely due to the disruption of downstream signaling pathways of *CaREN1* comprising of key components such as chaperones, phosphopeptide-binding proteins and GTPases involved in folding, transport and accumulation of seed storage proteins as indicated through Affinity purification mass spectrometry analysis. Taken together, the information generated would expedite tailoring of chickpea cultivars with augmented SPC.

Development of high-yielding drought tolerant chickpea variety

(PI: Parida Swarup K.)

Identifying potential molecular signatures for drought tolerance is essential for achieving higher crop productivity under drought stress. In our study, to identify such molecular tags, we employed an integrated genomics-assisted breeding strategy involving association mapping, fine mapping, map-based cloning, and molecular haplotyping in a introgression line-based association panel and mapping population of chickpea. We identified a bHLH transcription factor gene *CabHLH10* underlying a major quantitative trait locus (QTL), along with its derived natural alleles and haplotypes governing yield under drought stress. A superior haplotype of *CabHLH10* introgressed into the NILs improved root and shoot biomass, thereby enhancing yield and productivity during drought without compromising agronomic performance. These findings facilitate translational

genomics for crop improvement and the development of genetically tailored, climate-resilient, high-yielding chickpea cultivars.

B. Development and signalling

Histological and transcriptome analyses to determine factors regulating rice grain size

(PI: Agarwal Pinky)

Histological sections of endosperm development for five seed development stages of two rice genotypes with contrasting grain sizes, SN and LGR, indicated that cell size increased in LGR S3 stage. This event was inconspicuous in SN. Comparative transcriptome analyses of five stages of seed development amongst the two genotypes showed that though similar processes were operable during seed development in both, the genes involved were different, which could be essential for grain size regulation. There was a transcriptome shift in LGR S3 stage, which also showed a prominence of cell cycle related pathway. The seed development processes progressed slowly in LGR in comparison with SN. This also included carbohydrate and seed storage protein biosynthesis. Many TFs and phytohormone related genes were postulated to be regulating grain size, on the basis of their expression patterns and levels amongst SN and LGR. A model hypothesising the reason of increment of grain size in rice has been developed.

The role of phytoglobin-NO cycle and alternative oxidase during anaerobic germination of deepwater rice

(PI: Kapuganti Jagadis Gupta)

Anaerobic germination is an important feature of rice. The role of phytoglobin-NO cycle and AOX is not known, therefore in this study we investigated the role of these pathways in anaerobic germination. Under anoxic conditions deepwater rice germinated much higher extent and rapidly than aerobic condition and the anaerobic germination and growth was much higher in the presence of nitrite. Addition of nitrite stimulated NR activity and NO production. Important components of phytoglobin-NO cycle such as expression of *Phytoglobulin1*, *NIA1* and the promoters of these genes were elevated under anaerobic conditions in the presence of nitrite. The operation of phytoglobin-NO cycle also enhanced anaerobic ATP generation, lactic acid production and ADH activity. Interestingly nitrite suppressed the ROS production and lipid peroxidation. Application of AOX inhibitor SHAM inhibited the anoxic growth mediated by nitrite. In addition, nitrite improved the submergence tolerance of seedlings. Our study revealed that nitrite driven phytoglobin-NO cycle and AOX are crucial players in anaerobic germination and growth of deepwater rice.

Genetic basis of rice leaf size regulation – A case study with cultivated and wild rice

(PI: Ranjan Ashish)

Cellular and genetic understanding of rice leaf size regulation is limited, despite rice being the staple food of more than half of the global population. We investigated the mechanism controlling the rice leaf length using cultivated and wild rice accessions that remarkably differed for leaf size. Comparative transcriptomics, gibberellic Acid (GA) quantification, and leaf kinematics of the

contrasting accessions suggested the involvement of GA, cell cycle, and GRFs in the rice leaf size regulation. The leaf length of the selected accessions was strongly correlated with GA levels. Higher GA content in wild rice accessions with longer leaves and GA-induced increase in the leaf length via an increase in cell division confirmed a GA-mediated regulation of division zone in rice. Downstream to GA, OsGRF7 and OsGRF8 function for controlling cell division to determine the rice leaf length. Spatial control of cell division to determine the division zone size mediated by GA and downstream OsGRF7 and OsGRF8 explains the leaf length differences between the cultivated and wild rice. This mechanism to control rice leaf length might have contributed to optimizing leaf size during domestication.

LDL1 and LDL2 histone demethylases interact with FVE to regulate flowering in *Arabidopsis*
(PI: Sarkar Ananda K.)

In higher plants, epigenetic modifications provide a stage for both transient and permanent cellular reprogramming required for vegetative to reproductive phase transition. *Arabidopsis* LSD1-like 1 (LDL1), a histone demethylase positively regulates floral transition, but the molecular and biochemical nature of LDL1 mediated flowering is poorly understood. Here we have shown that LDL1 mediated regulation of flowering is dependent on MADS AFFECTING FLOWERING 4 (MAF4) and MAF5 floral repressors. LDL1 binds on the chromatin of *MAF4* and *MAF5* to repress their expression. Further we show that LDL2 negatively regulates the expression of MAF4 and MAF5 redundantly with LDL1. Both LDL1 and LDL2 interact with an autonomous flowering pathway protein, FLOWERING LOCUS VE (FVE), to regulate the floral transition and thus could be a part of the FVE-corepressor complex. We show that MAF5 interacts with other floral repressors FLC and SHORT VEGETATIVE PHASE (SVP) and repress the expression of *FT* to delay floral transition. Thus, our results deepen the mechanistic understanding of LDL1/LDL2-FVE mediated floral transition in *Arabidopsis*.

Iron derived signals underlie adaptive root developmental plasticity during ammonium toxicity

(PI: Singh Amar Pal)

In this study, we identified the interaction of NH_4^+ with iron (Fe) signals. High NH_4^+ as a sole N form inhibits plant growth by elevating the Fe levels that in turn leads to Fe toxicity. Our data suggested that the compromised root growth physiology of NH_4^+ grown roots depend on Fe availability and low levels of it promoted growth by regulating the nitrogen metabolism such as the activities of enzymes (GS-GOGAT pathway) which are involved in NH_4^+ assimilation. Not only the enzyme activities of the N assimilation pathway, but low levels of Fe were able to promote shoot to root NH_4^+ partitioning which is considered a key adaptive strategy in plants to optimize their growth. Analysis of *nitrate transporter 1.1* (*pNRT1.1-GUS*), which is known to regulate plant N balance and yield, also suggested that Fe levels can modulate the N transporter genes. Nonetheless, our data provide evidence that root growth and meristem maintenance during NH_4^+ toxicity depends on BR signaling. High NH_4^+ represses BR signaling which in turn leads to the accumulation of high Fe, thus leading to Fe toxicity. Additionally, low Fe increases BR signaling activity thus, repressing NH_4^+ dependent Fe toxicity.

Arabidopsis MPK3 and MPK6 interacts with G-proteins and regulates D-glucose signaling
(PI: Sinha Alok Krishna)

Sugar as a signaling molecule has attracted lots of attention. Even though several kinases have been shown to play a crucial role in the sugar signaling and response to exogenous D-glucose (Glc), the information on the involvement of MAP kinase cascade in sugar signaling has remained largely unexplored. In this report, we demonstrate that MAP kinase signaling is essential for sensitivity to higher concentrations of D-Glc in Arabidopsis. We found that D-Glc activates MAP kinases, MPK3 and MPK6 in a concentration and time-dependent manner. The mutants of *mpk3* and *mpk6* display hyposensitivity to 6% D-Glc during seed germination, cotyledon greening and root growth. Interestingly, the altered sensitivity to increased D-Glc is severely enhanced by adding 1% Sucrose to the media. Our study also deciphered the role of one of the Glc sensor proteins, RGS1 that interacts and gets phosphorylated at its C-terminal domain by MPK3 and MPK6. Overall, our study provides new insight into the involvement of MAP kinases in association with G-proteins that might regulate sugar signaling and sugar responsive growth and development in Arabidopsis.

Impact of whole genome duplication/triplication events on evolution and functional adaptation of gene families involved in the stem cell maintenance and cell identity transition
(PI: Soundararajan Prabhakaran)

Angiosperms have experienced genome duplication at least one time in the course of evolution. Morphological diversity from basal angiosperm to modern plant species is determined by propensity of the cascade of vital genes involved in plant developmental processes. Pluripotent stem cells located in shoot apical meristem (SAM) are repositories for the complete aerial growth. This study was conducted to investigate the regulatory mechanisms of gene families involved in maintenance of stem cells in SAM and inflorescence meristem transition among different morphotypes of *Brassica* species. WUSCHEL(WUS)-CLAVATA(CLV) feedback loop plays a vital role in stem cell fate and identity transition. In our in-silico analysis, we found the interesting fact that *CLV1*, *CLV2*, and *CLV3* were maintained as a single copy in *Brassica* diploid progenitors and two copies in their allotetraploids. Contrastingly, *WUS* gene copies remained duplicated or triplicated. Further analysis will be carried out to unveil molecular insights of the entire stem cell homeostasis regulatory pathway(s). Gain of knowledge on the evolutionary and developmental rationale on species diversification can be utilized for crop improvement programs.

Mediator subunit MED17 integrates sugar and auxin signaling to regulate root system architecture in *Arabidopsis thaliana*

(PI: Thakur Jitendra)

Sucrose and auxin are well known determinants of root system architecture (RSA), but the factors that converge the signaling pathways evoked by these two critical factors during root development are poorly understood. In this study, we report the previously unexplored role of mediator subunit 17 (MED17) in RSA and its involvement in the transcriptional regulation of sucrose and auxin signaling in Arabidopsis. Despite important regulatory and overlapping roles of sucrose and auxin, these two

factors have been studied separately. This study establishes MED17 as an important point to connect sucrose and auxin signaling by forming a complex with E2FA/B. In response to sucrose, E2FA/B-MED17 complex is directly recruited at the promoter of *ARF7* leading to its expression which then activates auxin signaling and thus initiates LR development. MED17 also activates root meristem by occupying the promoter of cell-cycle genes *MCM5/7*, *ETG1*, *ORC6* and so regulates their transcription. Thus, MED17 plays important role in relaying transcriptional signal from sucrose to auxin-responsive and cell-cycle genes to regulate primary and lateral root development.

C. Plant responses to abiotic stresses

Dehydration-responsive chickpea chloroplast protein, CaPDZ1, confers dehydration tolerance by improving photosynthesis

(PI: Chakraborty Niranjana)

We identified a dehydration-responsive chloroplast protein, CaPDZ1, and functionally characterized it. The expression of *CaPDZ1* found to be elevated under dehydration, oxidative stress and various phytohormone treatments. The performance of CaPDZ1-OE seedlings under dehydration, clearly implicate its function in assembly and/or repair of PSII, through interactions with PS associated chloroplast proteins. The interaction of CaPDZ1 with other PSs residents may indicate diverse roles in stress tolerant mechanisms, besides its action as PSII assembly factor, which accentuate the multiple roles of CaPDZ1.

MicroRNA397 targets Laccases in chickpea root to modulate lignin deposition and response to abiotic and biotic stresses

(PI: Chattopadhyay Debasis)

Lignin deposition in the secondary cell wall in root vascular tissue is a hallmark of drought response in plant. Two groups of enzymes, cell wall-localized peroxidases and laccases catalyse the formation of monolignol radicals and facilitate lignin polymer synthesis. MicroRNA397 has been shown to target various laccase (LAC) transcripts in different species and, thereby, regulates lignin deposition in various tissues. We show that miR397 expression is downregulated in chickpea root under natural drought in soil. Chickpea miR397 (CamiR397) targets LAC4 and LAC17. Ectopic overexpression of CamiR397 in chickpea decreased root lignin deposition. Leaf relative water contents of the transgenic lines were lower than the control wild type plants. Reduction of CamiRNA397 activity by expressing a short tandem target mimic (STTM) construct increased root lignin deposition. The CamiR397 overexpressing lines were more susceptible to *Macrophomina phaseolina*, the causative agent of chickpea dry root rot while, the STTM-plant showed significant tolerance to *M. phaseolina* infection. Our result showed a regulatory role of CamiR397 in abiotic and biotic stress.

OsJAZ11 regulates phosphate starvation responses in rice

(PI: Giri Jitender)

Jasmonic Acid (JA) is a key plant signaling molecule which negatively regulates growth processes including root elongation. JAZ (JASMONATE ZIM-DOMAIN) proteins function as transcriptional repressors of JA signaling. Therefore, targeting JA signaling by deploying JAZ repressors may enhance root length in crops. In this study, we overexpressed JAZ repressor *OsJAZ11* in rice to alleviate the root growth inhibitory action of JA. *OsJAZ11* is a low phosphate (Pi) responsive gene which is transcriptionally regulated by OsPHR2. We report that *OsJAZ11* overexpression promoted primary and seminal root elongation which enhanced Pi foraging. Moreover, *OsJAZ11* overexpression suppressed JA signaling and biosynthesis as compared to wild type (WT). We further demonstrated that the C-terminal region of *OsJAZ11* was crucial for stimulating root elongation in overexpression lines. Interestingly, *OsJAZ11* also regulates Pi homeostasis via physical interaction with a key Pi sensing protein, OsSPX1. Our study highlights the functional connections between JA and Pi signaling and reveals JAZ repressors as a promising candidate for improving low Pi tolerance of elite rice genotypes.

A negative feedback loop of TOR signaling balances growth and stress-response trade-offs in plants

(PI: Laxmi Ashverya)

TOR kinase is a central coordinator of nutrient-dependent growth in eukaryotes. Maintaining optimal TOR signaling is critical for the normal development of organisms. Here, we describe a negative feedback loop of TOR signaling helping in the adaptability of plants in changing environmental conditions. Using an interdisciplinary approach, we show that the plant-specific zinc finger protein FLZ8 acts as a regulator of TOR signaling in Arabidopsis. In sugar sufficiency, TOR-dependent and -independent histone modifications upregulate the expression of FLZ8. FLZ8 negatively regulates TOR signaling by promoting antagonistic SnRK1 α 1 signaling and bridging the interaction of SnRK1 α 1 with RAPTOR1B, a crucial accessory protein of TOR. This negative feedback loop moderates the TOR-growth signaling axis in the favorable condition and helps in the activation of stress signaling in unfavourable conditions, establishing its importance in the adaptability of plants.

ABI transcription factors and PROTEIN L-ISOASPARTYL METHYLTRANSFERASE module mediates seed desiccation tolerance and longevity in *Oryza sativa*

(PI: Majee Manoj)

Orthodox seeds are desiccation tolerant and can survive in a desiccated state for prolonged period; while recalcitrant seeds lack such feature. Our analyses of two *Oryza species* with contrasting seed desiccation tolerance reveal that PIMT act as a key player that govern seed desiccation tolerance to orthodox seeds but ineffective in recalcitrant seeds. We show that desiccation intolerance of recalcitrant seeds of *Oryza coarctata* are linked to reduced PIMT activity and increased isoaspartyl accumulation. Our analysis reveals that *O. coarctata* encodes two biochemically active PIMT isoforms but lacks the ability to up regulate PIMT during the late maturation phase, while PIMT is

markedly induced during maturation in orthodox rice seeds by ABI TFs. We show that suppression of PIMT reduces, while its overexpression increases seed desiccation tolerance in *O. sativa*. We show that ABI TFs, whose function is essential for seed desiccation tolerance, undergo isoAsp formations that adversely affect their functional competence. However, PIMT interacts with these TFs and repairs isoAsp and facilitates their functions for the successful acquisition of desiccation tolerance of orthodox seeds.

Understanding the cultivar-biased regulation of *HSFA7* and *HSFB4a* in governing high temperature tolerance in tomato

(PI: Mathur Saloni)

Comparative expression profiles of *HSFs* in heat stress (HS) tolerant/sensitive tomato cultivars revealed cultivar-biased regulation of an activator (*HSFA7*) and a repressor (*HSFB4a*) *HSF*. *HSFA7* exhibited strong upregulation while *HSFB4a* showed downregulation in tolerant cultivar upon HS. Functional characterization of *HSFA7* and *HSFB4a* in tolerant-sensitive cultivar pair by VIGS and transient overexpression showed them as a positive and a negative regulator of HS tolerance, respectively. Promoter:reporter assays and promoter sequence analyses suggested HS-mediated transcriptional control of both the *HSF* genes in the contrasting cultivars. Moreover, we identified *HSFB4a* as a target of miR4200. Transient *MIR4200*-effector:*HSFB4a*-reporter assays showed miRNA dependent target downregulation as well as chelation of miR by short-tandem-target-mimic increased target abundance. This miRNA is induced several folds upon HS in the tolerant variety where *HSFB4a* levels are reduced thus exhibiting the inverse miR:target expression. Thus, we speculate that alleviation of *HSFB4a* and increased *HSFA7* levels regulate thermotolerance in the tolerant cultivar by controlling downstream HS responsive genes.

Role of Jasmonic Acid (JA) biosynthesis pathway in potassium (K) deficiency tolerance in chickpea

(PI: Singh Amarjeet)

Recent studies predict crucial role of JA in K⁺ deficiency response. Thus, we hypothesize that JA biosynthesis genes must regulate the level of JA under low-K⁺ stress. Genome wide analysis showed that at the sequence level members of all JA biosynthesis gene families are highly conserved in higher plants but differ from lower plants, indicating their diverse evolutionary path. Localization analysis predicted that members of LOX, AOS and AOC families reside at the diverse sub-cellular compartments, which could be their possible site of activity. Expression, purification and enzymatic activity of two proteins (CaAOS1 and CAOPR2) authenticate them as functional enzymes. Several genes show differential expression pattern under low-K⁺ conditions, indicating a crucial role of JA biosynthesis genes in K⁺ deficiency response in chickpea. Differential expression pattern of most JA biosynthesis genes in plant developmental stages indicate their role in various aspects of chickpea plant development. Interestingly, JA biosynthesis genes which showed overlapping expression in K⁺ deficiency and abiotic stresses could integrate K⁺ deficiency and abiotic stress signaling pathways in chickpea.

D. Plant-microbe/insect interactions

Molecular insights into the organellar control of innate immunity in chickpea vascular wilt

(PI: Chakraborty Subhra)

Vascular wilt, caused by the multi-host fungal pathogen, *Fusarium oxysporum* f.sp. *ciceri* accounts to severe yield loss in the productivity of the second most important food legume chickpea, while *Fusarium*-mediated killing of worm has recently been described. Nucleus, the regulatory hub house genetic information essential for the regulated expression of proteins and a repository of macromolecules those serve as the modulators of various signalling networks in response to extracellular stimuli, including pathogen stress. In this study, we elucidated the nucleus-associated immune pathways in wilt resistant chickpea cultivar during vascular wilt. Multiomics analyses, using comparative transcriptomics, proteomics and phospho-proteomics of resistant cultivar identified several potentially interesting immune responsive factors (IRFs), immune responsive proteins (IRPs) and immune responsive phosphoproteins (IRPPs) of biological significance. Network analyses of nuclear resident IRFs, IRPs and IRPPs highlighted interplay between diverse nuclear events and identified novel functional modules related to transcriptional regulation and chromatin remodeling those might play central role in regulating number of biological and molecular pathways linked to the immune regulation in vascular wilt. The study led to the identification of a putative immune biomarker and transcriptional regulator, designated as IRF1 that plays a significant role in fungal stress tolerance. The findings of this study would pave the avenue for developing wilt resistant chickpea in particular and crop species in general.

The alternative sigma factors, rpoN1 and rpoN2 are required for mycophagous activity of *Burkholderia gladioli* strain NGJ1

(PI: Jha Gopaljee)

Bacterial mycophagy is an important trait which can be exploited for control of important fungal diseases, including sheath blight disease, caused by *Rhizocotonia solani* in rice. We demonstrate that alternative sigma factors (sigma 54) i.e., RpoN1 and RpoN2 are required for mycophagous ability of *B. gladioli* strain NGJ1 on *R. solani*. NGJ1 encodes two copies of *rpoN* (*rpoN1* and *rpoN2*) and both of them are upregulated during mycophagy. Mutation in either one of *rpoNs* rendered the mutant bacterium defective in foraging over *R. solani*, whereas complementation restores mycophagy. RpoNs are also required by NGJ1 for fungal killing and efficient biocontrol of *R. solani* in rice. Our study emphasizes that RpoNs promote mycophagy through transcriptional regulation of T3SS, nitrogen assimilation, and cellular transport related functions in NGJ1.

Interaction of ToLCNDV TrAP with SIATG8f marks it susceptible to degradation by autophagy

(PI: Prasad Manoj)

In our previous study, we had performed a genome-wide analysis of *SIATG* genes in tomato (*Solanum lycopersicum*). The expression profile of *SIATG* genes was compared between ToLCNDV infected tolerant tomato cultivar (H-88-78-1) and susceptible tomato cultivar (Punjab

Chuhara) which revealed that genes belonging to the *SIATG8* cluster were up-regulated. Since several recent studies have shown that ATG8s can directly regulate host-virus interaction, the present study was formulated. We have found that SIATG8f can interact with the ToLCNDV TrAP and mediate its degradation by the autophagy pathway. This interaction is due to the presence of an AIM in the C-terminal region of TrAP. Mutation of AIM results in the inhibition of interaction between the two proteins thus, preventing degradation of TrAP. Since TrAP is a nucleus localized protein and its degradation requires it to be exported out of the nucleus, the host Exportin1 (Xpo1) might be assisting its nuclear export. These results suggest that autophagy is involved in the degradation of the ToLCNDV protein TrAP as a defense strategy to inhibit virus infection in the host.

Nodule INception (NIN)-independent epidermal events lead to bacterial entry during nodule development in peanut (*Arachis hypogaea*)

(PI: Sinharoy Senjuti)

Legumes can host nitrogen-fixing rhizobia inside root nodules. In model legumes, rhizobia enter via infection threads (IT) and resulting into a mosaic infection zone. Peanut diversified from model legumes ~50-55 million years ago (MYA). Instead of IT, rhizobia enter through 'cracks' to form nodules in peanut where the infection zone is uniformly infected. Phylogenomic studies have highlighted that peanut is in an intermediate step of evolution. These atypical features prompted us to investigate the molecular differences in nodule development between peanut and model legumes.

Combining cell biology, genetics, and genomic tools, we dissected the signaling modules of Nodule INception (NIN), a master regulator of both epidermal infection and cortical organogenesis. NIN is involved in pericycle/cortical nodule organogenesis, but not in epidermal crack entry. Replacing Nodulation Pectate Lyase (NPL), a direct target of NIN; Nodule enhanced Glycosyl Hydrolase (AhNGHs) is recruited for cell wall modification during crack entry. Establishing the function of the NIN signaling modules is diversified among the members of Papilionoid legumes.

Deciphering the mechanism involved in root endophyte *Piriformospora indica* mediated growth promotion in tomato

(PI: Vadassery Jyothilakshmi)

Growth promotion induced by the endosymbiont *Piriformospora indica* has been observed in various plants; however, specific functional metabolites involved in *P. indica*-mediated growth promotion are unknown. Here, we used a GC-MS based untargeted metabolite analysis to identify tomato (*Solanum lycopersicum*) metabolites whose levels were altered during *P. indica*-mediated growth promotion. Metabolomic multivariate analysis revealed several primary metabolites with altered levels, with putrescine induced most significantly in roots during the interaction. Further, our results indicated that *P. indica* modulates the arginine decarboxylase (ADC)-mediated putrescine biosynthesis pathway via induction of *SIADC1* in tomato. *P. indica* did not promote growth in *Sladc1*-VIGS lines of tomato and showed less colonization. Furthermore, using LC-MS/MS we showed that putrescine promoted growth by elevation of auxin (indole-3-acetic acid) and gibberellin (GA₄, GA₇)

levels in tomato. Putrescine is also important for hyphal growth of *P. indica*, indicating that it is co-adapted by both host and microbe. Putrescine is an essential metabolite and its biosynthesis in plants is crucial for *P. indica*-mediated plant growth promotion and fungal growth.

Genomics-assisted identification of fungal disease-resistant genes in crop plants and structural determination of an oxidoreductase enzyme from fungal phytopathogens

(PI: Verma Praveen K.)

We have successfully fine-mapped and identified candidate genes under *qABR4.2* region responsible for providing AB resistance, and developed co-dominant markers which will help breeders in developing AB-resistant varieties. Further, we have also genetically narrowed *qABR4.3* region. The identification of the candidate genes under this narrowed region is ongoing. We are also doing translation work to prove the role of our genetic findings in field conditions by MABC introgression into AB susceptible mega varieties. The rate of marker-assisted validity of F_1 and BC_2F_1 is encouraging and crossings for the generation of F_1 hybrid lines, for integrating AB and FW alleles into a single hybrid are undergoing.

We also determined the first crystal structure of a novel class III OYE homolog (ArOYE6) which are exclusively present in fungi. The crystal structure of ArOYE6 was resolved at high resolution (1.6Å), which revealed the typical TIM-barrel fold as observed in other flavin oxidoreductases besides several unique class III specific structural features. The extended C-terminal helical region which is involved in co-factor retention, is one of the important features of this enzyme. In addition, the biochemical data demonstrated the cofactor/coenzyme preference and oxido-reductase mechanism. These structural intricacies would assist in further exploration of the function of this unique enzyme family in fungi.

E. Computational and structural biology

DNA repair and recombination in plants

(PI: Gaur Vineet)

The project on the structural and biochemical studies of the DRR mechanism in plants was initiated three years back. We started with cloning and purification of structure-specific endonucleases from diverse structural superfamilies (GEN1, SEND1, MUS81-EME1, and Slx1). So far, we have managed to clone and purify several of these proteins from various plant sources. Of these, we managed to obtain crystals for Slx1 in apo form. Based on the structure and biophysical characterization we managed to establish the role of plant SLX1 in the resolution of HJ and processing of other branched DNA intermediates. The work shed lights on the autoinhibitory regulation of the promiscuous catalytic activity of plant SLX1.

Computational investigation of transfer RNA-derived non-coding RNAs (tncRNAs), and their targets in plants

(PI: Kumar Shailesh)

Eukaryotic tncRNAs are the major players in the regulation of numerous cellular processes including growth, development, tolerance to abiotic stresses, induction of immune response to pathogen attacks as well as influence cross-kingdom interactions like symbiosis. In this study, we have identified the tncRNAs in the small RNA sequencing datasets of six different plant species and identified the targets of differentially expressed tncRNAs. Further, we have curated the datasets, generated by this study and developed a web resource for the exploration of tncRNAs in six major angiosperms, their putative targets, and interaction networks. Hence, the comprehensive, and efficient database available to the research community will be beneficial to boost tncRNAs research *in planta*. Experimental validation of tncRNAs, as well as their binding to probable targets, should be carried out for their functional characterization. Attempts will be made to update this database regularly by the addition of more and more tncRNAs and their targets as well.

Stress Combinations and their Interactions in Plants Database (SCIPDb): A comprehensive database for understanding combined stress responses in plants

(PI: Muthappa Senthil-Kumar)

The Stress Combinations and their Interactions in Plants Database (SCIPDb) is a compendium and interactive platform of plant morpho-physiological (phenomic) and molecular (transcriptomic) responses to different forms of combined stresses. It has been developed based on comprehensively analyzed literature spanning around 82 years on the impact of different biotic and abiotic stress combinations on cultivated and non-cultivated plants. SCIPDb aims to provide the scientific community a user-friendly, easy-to-access computational platform integrated with diverse datasets and tools for data preparation, visualization, and extraction for biological discovery in the area of combined stress. The database is expected to be released soon and will be the platform solely dedicated to providing extensive information related to combined stress studies in plants. It thus intends to facilitate a deeper understanding of the complex mechanisms of tolerance to multifactorial stress combinations in plants.

Prion like proteins mediate crosstalk between plant stress and memory

(PI: Yadav Gitanjali)

Prions can be considered as molecular memory devices, generating reproducible memory of a conformational change. Prion-like proteins (PrLPs) have been widely demonstrated to be present in plants, but their role in plant stress and memory remains unexplored. In this work, we report the widespread presence of PrLPs in plants through a comprehensive analysis of about 40 plants revealing diverse functional roles associated with these proteins and we term the entire PrLP complement of a genome, as it's Prionome. Rice data showed how PrLPs may build stress memory, through a significant enrichment for transposons/Retrotransposons mediating a complex network between PrLPs, transcription factors and stress priming genes. This work connects transient and trans-generational memory mechanisms in plants with prion-like proteins, suggesting that plant

memory may rely upon protein-based signals in addition to chromatin-based epigenetic signals. Taken together, the data provides important insights into the anticipated role of prions in stress and memory, paving the way for more focussed studies for characterizing the role of identified PrLPs in memory acclimation.

F. Nutritional traits in crops

Genomics-led manipulation of glucosinolate accumulation in the Indian oilseed mustard for achieving higher nutritional value

(PI: Bisht Naveen Chandra)

GTR1 and GTR2 transporters are components of the source to sink translocation network of glucosinolates, which constitute a major defence arsenal of the Brassicaceae. We expand our study in *B. juncea* natural population and identified accessions having contrasting seed:leaf glucosinolate profile. Genetic-genomic studies were conducted on the *B. juncea* natural accession and a biparental mapping population which led us to identify a few potential candidate genes involved in glucosinolate biosynthesis. Using RNAi-based approach, we identified the distinctive roles of *B. juncea* GTRs in shaping tissue-specific accumulation of glucosinolates and potential of manipulating *BjuGTR2* for enhanced nutrition and plant defence. Besides, a large number of CRISPR/Cas9 lines targeting multiple *BjuGTR* homologs have been developed in the native *B. juncea* and are being analyzed to investigate the key role of glucosinolate transporters, GTR1/GTR2 in the oilseed Brassica crop.

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.

Interplay between R2R3 MYB-type activators and repressors regulates proanthocyanidin biosynthesis in banana (*Musa acuminata*)

(PI: Pandey Ashutosh)

We characterized two proanthocyanidin-specific R2R3 MYB activators (MaMYBPA1-MaMYBPA2) and four repressors (MaMYBPR1–MaMYBPR4) to elucidate the mechanisms underlying the transcriptional regulation of proanthocyanidin biosynthesis in banana. MaMYBPA1 and MaMYBPA2 interacted physically with MaMYCs and bound the promoters of the genes encoding ANS, LAR, and ANR *in vitro* and form functional MBW complexes with MaTTG1 in protoplasts to transactivate these promoters *in vivo*. Overexpression of *MaMYBPAs* alone or with *MaMYC* in

banana fruits induced proanthocyanidin accumulation and the transcription of proanthocyanidin biosynthesis related genes. MaMYBPR repressors are also shown to interact with MaMYCs, forming repressing MBW complexes, and diminished proanthocyanidin accumulation. Interestingly the overexpression of MaMYBPA induces the expression of MaMYBPR, indicating an agile regulation of proanthocyanidin biosynthesis via the formation of competitive MBW complex. Taken together, our results reveal regulatory modules of R2R3 MYB- that fine-tune proanthocyanidin biosynthesis and offer possible targets for genetic manipulation in banana.

Towards developing genome-wide mutant population and reducing bran rancidity in rice using genome-editing approaches

(PI: Ram Hasthi)

Traditionally, mutant populations in different plant species have been generated in non-targeted and random fashion. However, using CRISPR-Cas9 approach, which is very precise and targeted, we have developed a pool library of Cas9-gRNA clones for selected 12,000 rice genes. Analysis of this library through Sanger sequencing and Next Generation Sequencing (NGS), very high accuracy (83%) and coverage (99%) was achieved. Furthermore, using multiplexed CRISPR-Cas9 approach, we have simultaneously knocked-out four selected bran specific lipases in rice, and generated different mutant combinations.

Publications and Patents

Publications

(April 2021 to March 2022)

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pathogenicity of spot blotch disease of wheat causing fungus *Bipolaris sorokiniana*. **Indian Phytopathology** 75: 57–66.

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Patents

(April 2021 to March 2022)

S. No.	Title	Date of file/grant of patent
Patents Filed:		
1.	Method for extending shelf-life of agricultural produce (US Patent Application No. 17/282,862)	27-04-2021
2.	Development of High-Yielding Drought-Tolerant Plant Lines and Methods Thereof (Complete Indian Patent Application No. 202111028267)	23-06-2021
3.	Pan-Genome Genotyping Array and Uses thereof (Complete Indian Patent Application No. 202111045696)	07-10- 2021
4.	A formulation and a method for inducing defense response in plants (Application No. PCT/IN2021/051056)	08-11 2021
5.	Method for producing transgenic plants overexpressing non-symbiotic hemoglobin class-1 gene, and applications thereof (Application No. PCT/IN2021/051079)	18-11-2021
6.	System for delaying ripening of agricultural produces (European Patent Application No. 20729235.0)	23-12-2021
Patents Granted:		
1.	Novel protein against fungal pathogens (Indonesian Patent No. PID 201900363)	02-06-2021
2.	Seed vigor associated polynucleotide sequences from chickpea and uses thereof (Indian Patent No. 370543)	29-06-2021
3.	Novel protein against fungal pathogens (US Patent No. 16/318,504)	12-10-2021
4.	Novel protein against fungal pathogens (Chinese Patent No: 201780044912.0)	23-11-2021

Awards and Honours

Awards and Honours

Faculty

Dr. Subhra Chakraborty

- ❖ Fellow of the Indian National Science Academy (INSA)
- ❖ Elected Council Member, Human Proteome Organization (HUPO)
- ❖ Member, Human proteome project-Scientific advisory board (HPP-SAB)
- ❖ Co-Chair, Food & Nutrition Initiative, under Biology/Disease-driven HPP
- ❖ Elected Council Member and Country Representative for India in Asia Oceania Agricultural Proteomics Organization (AOAPO)
- ❖ President & Executive Council Member, Proteomics Society, India (PSI)
- ❖ Executive Council Member, Society for Molecular Signaling, India

Dr. Alok Krishna Sinha

- ❖ Sir J C Bose National Fellowship from SERB, Government of India

Dr. Manoj Prasad

- ❖ Adjunct Professor, School of Life Sciences; University of Hyderabad, Hyderabad, Telengana, June 03, 2021

Dr. Jitendra K. Thakur

- ❖ NASI – Reliance Industries Platinum Jubilee Award, 2021
- ❖ Elected Fellow: The National Academy of Sciences, India 2020

Dr. Manoj Majee

- ❖ Fellow of Indian Academy of Sciences (FASc), Bangalore, India (2022)

Dr. Gitanjali Yadav

- ❖ The University of Cambridge Vice Chancellor's Award for Best Collaboration, 2021
- ❖ Featured in 365-Indian-Women-In-STEM by TheLifeofScience.com (TLoS) 2021

Dr. Ashverya Laxmi

- ❖ JC Bose National Award 2021 from SERB-DST India

Dr. Naveen Chandra Bisht

- ❖ Fellow of the National Academy of Agricultural Sciences, India (NAAS) – 2021
- ❖ Associate editor of Frontiers in Plant Science

Dr. Jagadis Gupta Kapuganti

- ❖ Listed as top 2% scientists in the world by Stanford University published list, 2021
- ❖ Member of Editorial Advisory Board, New Phytologist, 2021
- ❖ Elected member, Association of Applied Biologists UK, 2021
- ❖ Ramakrishna Pramahansa Grant Award from SreePVF foundation, 2021

Dr. Senthil-Kumar Muthappa

- ❖ Fellow, Indian Society for Plant Physiology (FISPP), New Delhi, India, 2021
- ❖ Senior Associate Editor, Applications in Plant Sciences, journal published by Botanical Society of America
- ❖ Reviewing editor for the journal Frontiers in Plant Science
- ❖ Editor, Plant Physiology Reports published by Indian Society for Plant Physiology New Delhi

Dr. Jitender Giri

- ❖ Fellow of National Academy of Sciences, India (NASI)

Dr. Swarup K. Parida

- ❖ Fellow, Indian National Science Academy (INSA), 2021
- ❖ IARI Dr. P.N. Bahl Award-IV for the Biennium 2018-19

Dr. Pinky Agarwal

- ❖ Guest Associate Editor for Frontiers in Genetics (Research Topic: Genetics and Genomics to Enhance Crop Production, Towards Food Security, Section: Plant Genomics), 2019-2022

Dr. Jyothilakshmi Vadassery

- ❖ EMBO Global Investigator, 2020 - 2024

Dr. Amarjeet Singh

- ❖ Membership of National Academy of Sciences, India (NASI)

Students

Ms. Akanksha Bhardwaj and Ms. Deevita Srivastava (Dr. Senjuti Sinharoy)

- ❖ Their respective posters were selected as one of the top 10% posters in the 90th Annual Meeting of SBC(I) “Metabolism to Drug Discovery: Where Chemistry and Biology Unite” organized in virtual mode by Amity Institute of Biotechnology & Amity Institute of Integrative Sciences and Health, Amity University Haryana (AUH), Gurugram, India, December 16 – 19, 2021.

Dr. Ashish Prasad (PI: Dr. Manoj Prasad)

- ❖ IVS-Young Scientist Award 2021 at Indian Virological Society, March 28, 2022.
- ❖ Best Poster Award 2021 at Indian Virological Society, March 28, 2022.

Dr. Shouvik Das (PI: Dr. Swarup K. Parida)

- ❖ INSA Young Scientist Award.

Ms. Chandni Bansal (PI: Dr. Saloni Mathur)

- ❖ Awarded the ASPB 2021 (American Society of Plant Biologists) Travel Award at Plant Biology worldwide summit USA, July 18 – 23, 2021.



Activities of the Institute

International Visits

International Visits

Dr. Gitanjali Yadav

- ❖ For DBT-Cambridge Lectureship, to Department of Plant Sciences University of Cambridge, U.K Sep 09 - Oct 20, 2021.

Invited Lectures

Invited Lectures

Dr. Subhra Chakraborty

- ❖ Delivered an invited lecture during the Valedictory function of Delhi University Botanical Society (DUBS) on June 2, 2021.
- ❖ Delivered an invited lecture at the National Webinar on “Advances in Biological Research” organized by the Post Graduate Department of Botany, Lady Brabourne College, Kolkata on July 5, 2021.
- ❖ Delivered the Presidential Talk at the 13th Annual Meeting of Proteomics Society, India and International Virtual Symposium on “OMICS in Redefining Modern Biology” organized by CSIR-Centre for Cellular & Molecular Biology, Hyderabad on October 21, 2021.
- ❖ Delivered an invited talk in lecture series “In Celebration of Diversity” organized by Indian Academy of Sciences, The Academy Trust and National Council of Science Museums on October 22, 2021.
- ❖ Delivered an invited Inaugural lecture in the 4th National Conference on Cellular and Molecular Biology & Biotechnology organized by Sharda University on October 28, 2021.
- ❖ Delivered an invited talk in the International Webinar Series “Reimagine Ethnopharmacology” organized by the Institute of Bioresources and Sustainable Development (IBSD), Imphal on December 18, 2021.
- ❖ Delivered an invited lecture in the Virtual Conference “Next generation proteome mining and nano-bio interactions for better plant growth” organized by University of Delhi on December 27, 2021.
- ❖ Delivered an invited lecture in the Indo-UK Newton-Bhaba Researcher Link Workshop on “Sustaining Food Production under Environment Stress” jointly organized by NABI, CIAB, JNU, ICGEB & NIPGR on January 20, 2022.
- ❖ Delivered a Plenary talk in the Meeting on “Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022)” organized by CDFD, Hyderabad on February 19, 2022.
- ❖ Delivered an invited lecture on the occasion of International Women's Day organized by Amity University, Gurgaon on March 8, 2021.
- ❖ Delivered an invited lecture on the occasion of International Women's Day organized by Institute of Physics, Bhubaneswar on March 8, 2021.
- ❖ Deliver a Presidential Address in the Panel Discussion during Proteomics Day Celebration by Proteomics Society of India (PSI) at IICB Kolkata on March 21, 2022.
- ❖ Delivered a Keynote Address in the International Conference on “Biotechnological Interventions to Overcome the Challenges of Covid/ Post-Covid Era (BIOCoPE-2022)” organized by Amity Institute of Biotechnology, Amity University Rajasthan, Jaipur on March 24, 2022.

- ❖ Delivered “Prof. Archana Sharma Memorial Award Lecture-2020” awarded by NASI, Prayagraj during the International Women’s Day organized by NASI on March 8, 2022.

Dr. Alok Krishna Sinha

- ❖ Delivered online lecture on a topic entitled "Signal transduction in plants and protein-protein interactions" at Science Setu Webinar Series 2021, NIPGR, New Delhi, May 13, 2021.
- ❖ Delivered online lecture on a topic entitled "Signal transduction in plants and protein-protein interactions" at the Department of Botany, Maharshi Dayanand University, Rohtak on a seminar on "Challenges in Food Production under Resilient Environment", July 28, 2021.
- ❖ Delivered online lecture on a topic entitled "Signal transduction in plants and protein-protein interactions" at the JNU Academic Staff College, New Delhi, December 15, 2021.
- ❖ Delivered lecture on a topic entitled “Crosstalk between ABA signaling, miRNA biogenesis factor and Mitogen-Activated Protein Kinase in Arabidopsis” at Newton Bhabha Fund Researcher Link Workshop organised by NABI, Mohali and University of Birmingham, UK, January 19, 2022.

Dr. Manoj Prasad

- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at NEHU, Shillong, Meghalaya, March 30, 2022.
- ❖ Delivered talk entitled, “Drought tolerance in millets: What we know so far”, at University of Hyderabad, Hyderabad, Telangana, March 22, 2022.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at IIT-Mandi, Himachal Pradesh, February 17, 2022.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at Amity University, Gwalior, Madhya Pradesh, February 10, 2022.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at DBT-NABI, Mohali, Punjab, January 18, 2022.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at Dr. Rajendra Prasad Central Agricultural University, PUSA, Samstipur, Bihar, January 08, 2022.
- ❖ Delivered talk entitled, “Feeding the 10 billion: A genomics perspective”, at Pt. Ravishankar Shukla University, Raipur, Chattisgarh, December 22, 2021,
- ❖ Delivered talk entitled, “Functional characterization of a stress-responsive gene in C4 model for climate resilient traits”, at TNAU, Tamil Nadu, November 10, 2021.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at University of Hyderabad, Hyderabad, Telangana, October 29, 2021.
- ❖ Delivered talk entitled, “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, at Jai Narain Vyas University, Jodhpur, Rajasthan, October 18, 2021.
- ❖ Delivered talk entitled, “Battle against viruses: smallRNAs as the defenders”, at University of Hyderabad, Hyderabad, Telangana, September 23, 2021.
- ❖ Delivered talk entitled, “Feeding the 10 billion: A genomics perspective”, at Indian Academy of Sciences, Bangalore, September 18, 2021.
- ❖ Delivered talk entitled, “Battle against viruses: smallRNAs as the defenders”, at Manipal Academy of Higher Education (MAHE), Manipal, Karnataka, September 03, 2021.

- ❖ Delivered talk entitled, “Feeding the 10 billion: A genomics perspective”, at Central University of Punjab, Ghudda, Bathinda, Punjab, May 22, 2021.

Dr. Jitendra K. Thakur

- ❖ Delivered talk on “Mediator complex is the converging point for multigenic traits (Webinar)” at Faculty Development Program on Applications of Genomics, Metagenomics and Bioinformatics in Biological Systems, Hansraj College, University of Delhi, August 16 - 20, 2021.
- ❖ Delivered online talk entitled “Structure and Function of Plant Mediator Complex” at workshop on Molecular Approaches for Crop Improvement, Baba Ghulam Shah Badshah University, Rajouri, J&K, August 23, 2021.
- ❖ Delivered online lecture on “Making Applied Sense of Fundamental Research” at NASI-Reliance Platinum Jubilee Award Lecture, The National Academy of Sciences India, Prayagraj, UP, India, December 06, 2021.
- ❖ Delivered talk on “Mediator is a converging point of multigenic traits”, International Conference on Biotechnological Initiative for Climate Resilient Agriculture, Department of Agricultural Biotechnology and Molecular Biology, Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar, January, 07 – 09, 2022.

Dr. Manoj Majee

- ❖ Delivered a talk in 2nd Edition of Global Agriculture Conference (Agri-2021)” organized by Reignite Innovative Conferences, Hyderabad (www.thereignite.com), May 21 - 22, 2021.
- ❖ Delivered a talk in Science Setu Webinar Series 2021-22: In celebration of Azadi ka Amrit Mahotsav to Commemorate 75 years of Independence, Organized by DBT-NIPGR, November 26, 2021.
- ❖ Delivered two talks in Virtual Science Academies Lecture workshop on "Plant Gene Regulation and Expression" supported by INSA, IAS and NASI. First talk entitled "Ubiquitin proteasome pathway (UPP) mediated plant gene regulation and expression", February 07, 2022 and second talk entitled "Regulation of expression of Protein repairing enzymes PROTEIN L-ISOASPARTYL METHYLTRANSFERASE in Plants" at Hindusthan College of Arts and Science, An Autonomous College - Affiliated to Bharathiar University, Coimbatore, February 08, 2022.

Dr. Gitanjali Yadav

- ❖ Delivered a talk on "Green Carbon for Food Security" at virtual symposium entitled "Perspectives in Computational Biology" organized by IISER-Mohali, April 01 - 03, 2021.
- ❖ Delivered a lecture on "Genomes to Phenomes" at Bezmialem Vakif University, Istanbul, Turkey, April 09, 2021.
- ❖ Delivered a talk on “Collective Capabilities in Crop Informatics” as a representative of the University of Cambridge Plant Sciences at the two day "Kew Crop Science Workshop" organized by the Royal Botanical Gardens Kew, in collaboration with Cambridge Crop Science Center, May 20 - 21, 2021.
- ❖ Delivered a talk on "R for Biologists" at University of Cambridge Bioinformatics Training Facility, June 01 - 02, 2021.

- ❖ Delivered a lecture at the 'Women in Science' Lecture Series organised by Banaras Hindu University, June 19, 2021
- ❖ Delivered a lecture on the theme 'Omics' and Crop Improvement' at the Centenary Celebration Talk Series organised by St. Berchmans College. Kerala, July 02, 2021.
- ❖ Delivered an expert talk on the theme of "Deriving Regulatory Inferences from Gene Expression Datasets" at Reliance Industries Ltd (RIL), July 07, 2021.
- ❖ Delivered a lecture on "Complex Network Analysis" at the 7th Summer Workshop and Internship on 'Computational Techniques for Social Good', at ACM Student Chapter of IGDTUW, Delhi, July 09, 2021.
- ❖ Participated and attended Global Conference on "Agricultural Genomics: Progress and Prospects" (AgOmics' 2021), organised by Centre for Plant Molecular Biology and Biotechnology, TNAU, to commemorate the Golden Jubilee Celebrations of Tamil Nadu Agricultural University, Coimbatore, October 23, 2021.
- ❖ Delivered lecture on CCM at TIGR2ESS Dissemination Workshop, Panjab University, Chandigarh, March 25, 2022.
- ❖ Delivered a talk on "An Introduction to R for Data Science in Biology" through online mode at British Nutrition NNedPro, March 27, 2022.
- ❖ Participated in Algal CCM – A Toolkit for Crop Productivity at NIPGR, New Delhi, March 29, 2022.
- ❖ Participated and attended TIGR2ESS Indo-UK Research Collaboration event at NIPGR, New Delhi, March 30, 2022

Dr. Ashverya Laxmi

- ❖ Delivered lecture on "Role of sugar signaling in regulating plant growth, development and stress responses" on the occasion of International Women's Day on theme 'Women Excelling in Science' at ICGEB, Department of Biotechnology, Govt. of India, March 8, 2022
- ❖ Delivered lecture entitled "Role of sugar control of gene expression in regulating plant growth, development and stress responses" at Virtual Science Academies Lecture workshop, Hindusthan College of Arts and Science, An Autonomous College - Affiliated to Bharathiar University, Coimbatore, February 8, 2022.
- ❖ Delivered talk on "The FCS-Like Zinc fingers coordinate the ancient SnRK1-TOR dynamics in land plants", at EMBO/Virtual mode, at Portugal, October 24, 2021.
- ❖ Delivered talk entitled "Understanding role of sugar signal transduction in regulating plant growth development and stress responses" during Science Setu Webinar Series, NIPGR through online mode, July 9, 2021

Dr. Naveen Chandra Bisht

- ❖ Delivered an invited talk on "Genome Editing for Nutritional Quality Improvement" in One Day National Webinar on Emerging Techniques in Molecular Biology for Crop Improvement, jointly organized by NASI-Kerala Chapter and Centre for Plant Biotechnology and Molecular Biology, KAU, February 16, 2022.

- ❖ Delivered an invited talk entitled “Metabolic Engineering of Secondary Metabolites” during Value Added Course in Biotechnology on “Biotechnology for Human Welfare” (December 27 – 31, 2021) organized by the Department of Biotechnology & Centre for Genomics and Bioinformatics, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, UP., December 31, 2021.
- ❖ Delivered a talk entitled “Plant Secondary Metabolism in the Modern Era” during the 20th Science Setu Webinar series of DBT-NIPGR, in celebration of Azadi ka Amrit Mahotsav to Commemorate 75 years of Independence, December 24, 2021.
- ❖ Delivered an invited talk on “Gene Editing in Polyploid Crops for Trait Improvement” during the workshop entitled ‘Hands-On Training on CRISPR/Cas9 mediated gene-editing in plants’ organized by the Department of Plant Sciences, University of Hyderabad, December 31, 2021.
- ❖ Delivered a talk as invited speaker during the webinar on “A systems and synthetic approach in contemporary Plant Biology” organized by INSA Kolkata Chapter. The talk entitled “Systems Biology Connects the Evolution of Glucosinolate Metabolism from Primary (Leucine) Metabolism in Brassicaceae”, September 28, 2021.
- ❖ Delivered an invited talk in the ‘Agri Tech Talks’ entitled “Enhancing Nutritional Value of Brassica Oilseeds through Genetic Engineering” organized by Federation of Seed Industry of India (FSII), September 20, 2021.
- ❖ Delivered a talk as invited speaker entitled “Quality Improvement of Indian Oilseed Mustard”, during the spotlight on Prof Akshay K. Pradhan's exceptional academic journey organized by the Department of Genetics, University of Delhi South Campus, New Delhi, August 31, 2021.
- ❖ Participated as an expert in Brainstorming session on ‘Oil-bearing feedstock improvement and production’ jointly organized by the Department of Biotechnology (DBT) and The Energy and Resources Institute (TERI), New Delhi, July 20, 2021.
- ❖ Delivered an invited speaker talk entitled “Expanding the metabolic engineering toolbox for nutritional improvement of Indian oilseed mustard”, at 42nd Annual Meeting of the PTCA(I) and International Symposium on Advances in Plant Bio-technology and Genome Editing organized by the ICAR-Indian Institute of Agricultural Biotechnology, Ranchi in association with Plant Tissue Culture Association-India (PTCA-I), April 09, 2021.

Dr. Jagadis Gupta Kapuganti

- ❖ Delivered a key note talk entitled “The functional role of nitric oxide under low oxygen conditions and stress in plants” at 8th International Nitric Oxide Virtual meeting organized by University of Szeged, Hungary, July 08, 2021.
- ❖ Delivered a talk “Towards developing salinity tolerant plants adaptable for coastal area” at Role of Research Technology & Startup in Blue Economy, Organized by Ministry of Earth Sciences, Govt of India October 18, 2021.
- ❖ Delivered a scientific talk on “Nitric oxide synthesis, signaling and nanoparticles delivery for stress tolerance in plants” at Next generation proteome mining and Nano-biointegration for better plant growth organized by Department of Botany, University of Delhi, December 27 - 29, 2021.
- ❖ Delivered invited talk at Indo-UK workshop, NABI Mohali, January 18, 2022.

Dr. Gopaljee Jha

- ❖ Delivered an invited talk entitled “Conversion of a defensive toxin-antitoxin system into an offensive T6SS effector in Burkholderia” at Biology Departmental Webinar series for Monsoon 2021, IISER Tirupati, November 09, 2021.
- ❖ Presented an invited lecture “Unraveling and bioprospecting the molecular secrets of fungal eating bacteria” in Faculty development program, at GNDU, Amritsar, December 29, 2021.
- ❖ Presented an invited talk entitled “Conversion of a defensive toxin-antitoxin system into an offensive T6SS effector in Burkholderia” during the virtual meeting on Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022) at CDFD, Hyderabad, February 17 -20, 2022.
- ❖ Presented an invited talk entitled “Genome duplication and transposon mediated gene alteration shapes the pathogenicity of Rhizoctonia solani AG1-IA” in the National Seminar on “Advances in Basic and Translational Research in Biology (ABTRiB)” organized by Department of Molecular Biology and Biotechnology, Tezpur University, March 11 - 12, 2022.

Dr. Senthil-Kumar Muthappa

- ❖ Delivered lead talk on ‘Stress interaction & combined stresses in plants’ at Science Setu Webinars organized by DBT-NIPGR, April 23, 2021.
- ❖ Delivered lead talk on ‘Stopping fuel for the fire: a role for SWEETs in plant defense’ at the 42nd Annual Meeting of Plant Tissue Culture Association (INDIA) & International Symposium on Advances in Plant Biotechnology and Genome Editing - 2021 (APBGE-2021), April 08, 2021.
- ❖ Delivered talk on ‘Nonhost disease resistance and regulation of plant immunity in the presence of abiotic stress: two potential research areas’ at the Brainstorming session "Prospects and problems for identification of novel genes in crops and its relatives for biotic stress mitigation" organised by ICAR-National Institute of Biotic Stress Management, Raipur, July 07, 2021.
- ❖ Participated and organized the interactive sessions at ‘ConSept 21: International Dialogue on Harnessing Plant Physiology for Crop Improvement’ on the Theme: Harnessing the accrued plant physiology knowledge to improve crop productivity in a resource-limited and changing world’ at UAS-GKVK Bangalore, September 25, 2021.
- ❖ Delivered lead talk on ‘Combined Biotic-Abiotic Stresses and their Interaction in Crop Plants: Current Understanding, Challenges and Avenues’ at the 5th International Agronomy Congress (IAC) November 23 - 27, 2021 Symposium IV: New Vistas in Biotic and Abiotic Stress Management held at Hyderabad. November 21, 2021.
- ❖ Delivered lead talk on ‘Dry root rot pathogen likes it dry and hot: a tale of combined stresses in chickpea’ at the National Conference of Plant Physiology-2021, Frontiers of Plant Physiology for Climate Smart Agriculture, December 09, 2021.
- ❖ Delivered talk on ‘Sweet revenge: role for SWEET class of sugar transporters in plant defense’ at Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022): An interactive virtual meeting, February 17, 2022.
- ❖ Delivered talk at the Training programme on “Combined abiotic and biotic stresses in field crops: characterization and management” at “Enhancing Climate stress resilience of Hill agriculture under Changing climate” organized during March 14 - 21, 2022 at ICAR Research Complex for NEH Region, Umiam, March 16, 2022.

- ❖ Delivered talk on 'Drought stress impacts endodermal barrier, rendering chickpea plants hypersusceptible to dry root rot disease' at 8th International Conference organized by Indian Phytopathological Society on "Plant Pathology: retrospect and prospects" on March 24, 2022.

Dr. Jitender Giri

- ❖ Delivered talk on "CRISPR-Cas9 and its application in improving phosphate transport in plants" at Plant Sciences Department, Central University of Hyderabad, Telangana October 04, 2021.
- ❖ Delivered talk on "Applications of CRISPR/Cas9 in improving phosphate uptake in plants" through Online mode at 'Agri Tech Talks' organised by FSSI, India, November 23, 2021.
- ❖ Delivered invited talk on "The use of membrane lipid remodeling for improving P use efficiency in plants" at National Conference on Plant Physiology 2021 at ICAR-NIASM, Pune, December 09, 2021.
- ❖ Delivered talk entitled "Low P tolerance in rice: Mechanisms and way forward", under Bharat ki Azadi ka Amrit Mahotsav, organized by Society for Advancement of Rice Research (SARR) at IIRR, Hyderabad, January 22, 2022.
- ❖ Delivered talk on "CRISPR-Cas9 and its application in improving phosphate use and transport in plants", during training programme on Genome Engineering: CRISPR-Cas9 as an emerging tool at All India Council for Technical Education, Ghaziabad, New Delhi. December 14, 2021.
- ❖ Delivered talk on Underground revolution: Roots can help achieving food security at SGTB Khalsa College, University of Delhi organized by Botanical Society of SGTB Khalsa college, January 22, 2022.

Dr. Saloni Mathur

- ❖ Delivered an invited online lecture entitled "Making sense of 'non-sense' RNAs", at Gargi College Alumni lecture series 2021-22, Department of Botany, University of Delhi, November 27, 2021.
- ❖ Delivered a talk entitled "The 'dark matter' rises: the fascinating world of regulatory non-coding RNAs in plants" for Science Setu Webinar Series 2021-22 in the celebration of Azadi ka Amrit Mahotsav to Commemorate 75 years of Independence, organized by DBT-NIPGR, New Delhi, September 10, 2021.
- ❖ Delivered an online talk on "Insights into intricate regulatory networks in deciphering heat stress response in plants" in the theme, 'Applications of Genomics, Metagenomics and Bioinformatics in Biological Systems' at Mahatma Hansraj Faculty Development Centre under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Hansraj College, University of Delhi, August 20, 2021.
- ❖ Delivered talk on "A Peek into the Secret World of Plants" on the theme "Ten Interesting Discoveries in Plant Sciences" for the 6th International "Fascination of Plants Day" (FoPD), an online event organized by DBT-NIPGR, New Delhi, May 31, 2021.

Dr. Swarup K. Parida

- ❖ Delivered talk on New Dimensions in Crop Improvement: From Allele Mining to Genome Editing, a National Webinar, at Rani Lakshmi Bai Central Agricultural University (RLBCAU), Jhansi, Uttar Pradesh, February 26, 2022.

- ❖ Participated and delivered a lecture at UGC-Human Resource Development Centre, Panjab University, Online Faculty Development Program on Integrated Approaches in Biological Sciences, Chandigarh, February 22 - 28, 2022.
- ❖ Delivered a talk on “Molecular Breeding Approaches and Tools”, as a part of On-line Training Programme for Breeders of AICRP-Oilseeds, Rajendranagar, Hyderabad, Telangana, September 29 - October 1, 2021.

Dr. Pinky Agarwal

- ❖ Delivered invited talk entitled “Paths to Scientific Research”, Botany Department, Gargi College, Delhi University, March 12, 2022.
- ❖ Delivered invited talk on “The Rice Grain: A Humble yet Mighty Staple Food” organized by IAAS National Congress, November 18, 2021.
- ❖ Delivered invited online talk entitled “Rice Grain: A Staple Food for All” at Antheia-Botanical society of Miranda House, Delhi University, October 29, 2021.
- ❖ Delivered talk entitled “Rice Grain: A Staple Food for All” during Science Setu Webinar Series at DBT-NIPGR August 13, 2021.

Dr. Jyothilakshmi Vadassery

- ❖ Delivered Expert Lecture online on the topic “Plant Metabolomics for Crop Improvement”, at BIRACs SITARE BIIS-11 program March 15, 2022.
- ❖ Delivered a lecture on “Piriformospora indica employs putrescine for growth promotion in plants”, at the virtual meeting on Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022) organised by Centre for DNA Fingerprinting and Diagnostics, Hyderabad, February 17 - 20, 2022.
- ❖ Delivered invited lecture on “Piriformospora indica recruits host-derived putrescine for growth promotion in plants” at 90th Annual Meeting of Society of The Biological Chemists: “Metabolism to Drug Discovery, where Chemistry and Biology Unite” organized by Amity University, Gurugram, Haryana, December 18, 2021.
- ❖ Delivered invited talk on “Calcium to sense insects and symbionts: Role of cyclic nucleotide gated channel in plant defense responses” at Indian Institute of Science (IISc), Bangalore, December 7, 2021.
- ❖ Delivered invited lecture on “Early Signaling Events in Plants after Insect Herbivory” at University of Pune, December 1, 2021.
- ❖ Delivered invited lecture on “Improving plant defense against Lepidopteran insect pests using functional genomics and metabolomics” at XV Agricultural Science Congress, BHU, Varanasi, November 13 -16, 2021.
- ❖ Delivered invited lecture on “Use of Molecular techniques in understanding plant defense against insect herbivory” on the occasion of Centenary Online Talk Series at St. Berchmans College, Kerala, July 05, 2021.
- ❖ Delivered talk on “Chemical Ecology of Plant- Insect interactions” in the DBT- Science Setu Seminar Series at NIPGR, New Delhi, June 11, 2021.
- ❖ Delivered lecture in Ask Me Anything (AMA) session on EMBO- Global Investigator funding organized by India Bioscience, May 06, 2021.

- ❖ Delivered an invited lecture on the topic “Plants and their Microbial Friends” in Outside In seminar series on Ecology by NCBS and Bangalore Lifescience Cluster, April 23, 2021.

Dr. Ashish Ranjan

- ❖ Delivered talk entitled “Natural variation for leaf developmental and biochemical attributes: A potential resource for increasing photosynthetic efficiency”, at Lawrence Bogorad Memorial Symposium, Current Research Trends in Photosynthesis organized by Indian Society of Plant Physiology, August 29, 2021.
- ❖ Delivered an online talk on “Leaf developmental plasticity in response to high temperature involves cell cycle control via PIF4 and TCP4 transcription factors”, at International Webinar on Plant Developmental Plasticity: A Molecular Perspective (PDPAMP) organized by Acharya Nagarjuna University, Guntur and IISER, Tirupati, September 28, 2021.
- ❖ Delivered a talk on “Harnessing Natural Variation to Overcome the Biochemical Limitations to Leaf Photosynthesis in Rice”, at XV Agricultural Science Congress, Banaras Hindu University, Varanasi, November 16, 2021.

Dr. Senjuti Sinharoy

- ❖ Delivered talk on “Transcriptome profiling reveals divergent evolution of genes involved in the development of nitrogen fixing Aeschynomene nodules of peanut”, at 14th European Nitrogen Fixation Conference (ENFC 2021) satellite meeting: Crop Legume Genetics and Nitrogen Fixation, October 2021.
- ❖ Delivered talk on “Divergent evolution and chemistry drive symbiotic nitrogen fixation in peanut”, through online meeting of the Society of Biological Chemistry, Session Molecular Cell Signaling I, December 2021.
- ❖ Delivered talk on “Divergent evolution shapes up the non-canonical and high nitrogen-fixing nodule development of peanut”, during Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022) hosted by CDFD, Hyderabad via online mode, February 19, 2022.

Dr. Amar Pal Singh

- ❖ Delivered talk on “Hormonal crosstalk and growth coordination at the cellular level during nutrient stress in plants”, during Microscopy and Imaging: From operations to applications event at Amity University Haryana, August 31 – September 06, 2021.

Dr. Shailesh Kumar

- ❖ Delivered talk on “Role of Next Generation Sequencing technologies in Genomics research”, at Department of Biotechnology, IILM CET, Gr. Noida, India, October 05, 2021.
- ❖ Delivered talk on “Prediction of non-coding RNA”, at ICAR-Indian Agricultural Statistics Research Institute, New Delhi, India, February 18, 2022.
- ❖ Delivered a talk on “RNA-Seq: from library preparation to Data Analysis”, at Pondicherry University, February 16, 2022.

- ❖ Delivered talk on “Role of Bioinformatics in Genomics Research”, at Kurukshetra University, India, October 10, 2021.
- ❖ Delivered talk entitled “Role of big data analysis to design the improved plant varieties for human health”, at Indraprastha Institute of Information Technology Delhi (IIIT-D), New Delhi, October 19, 2021.

Dr. Ashutosh Pandey

- ❖ Delivered an online lecture entitled “Designing Value-Added Food Crops for Better Health and Nutrition”, for Science Setu Webinar Series in the celebration of Azadi ka Amrit Mahotsav to Commemorate 75 years of Independence, at DBT-NIPGR, October 22, 2021.
- ❖ Delivered invited lecture entitled “Metabolomics for understanding intricacies of plant specialized metabolism and development of value-added crops” as Chief Guest on the occasion of National Science Day Lecture at CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow, February 28, 2022.

Dr. Prabhakaran Soundararajan

- ❖ Delivered an online talk on “Silicon, a “Quasi-Essential” element for plant growth and development”. At International Conference on Recent Trends in Molecular Physiology of Horticultural Crops under Abiotic Stress, Vellore Institute of Technology, Tamil Nadu, December 03 - 04, 2021.

Dr. Hasthi Ram

- ❖ Delivered talk entitled “An integrated analysis of cell-type specific gene expression reveals targets of REVOLUTA and KANADI1 in the Arabidopsis shoot apical meristem”, at Puducherry University, February 16, 2022.
- ❖ Delivered talk on “Making India malnutrition free: By improving nutritional qualities of rice grain” during Science Setu Seminar Series at, DBT-NIPGR, September 24, 2021.

Participation in National/International Conference/Workshops

Faculty

Dr. Subhra Chakraborty

- ❖ Participated in Brainstorming Session for Nutritional Immunity as an Expert Panel Member organized by NABI, Mohali on April 12, 2021.
- ❖ Participated in 10th AOHUPO Congress organized by the Asia-Oceania Human Proteome Organization during June 30-July 2, 2021.
- ❖ Participated in Conference on “Ensuring Food and Nutrition Security in the context of Climate Change and Corona pandemic” organized by MSSRF, Chennai on August 6, 2021.
- ❖ Participated in HUPO-2021 World Congress organized by the Human Proteome Organization during November 15-19, 2021.
- ❖ Participated and Chaired a Session in 6th International Conference on Translation Research: Impact of Post-COVID-19 Pandemic on Society, Healthcare System and Bench to Bed Research (ICTR-2021) jointly organized by Indian Society for Translational Research (ISTR), New Delhi and KIIT Deemed to be University, Bhubaneswar on December 18, 2021.
- ❖ Participated in Science Leaders Conclave jointly organized by CSIR, DST, DBT and VIBHA at CSIR-IICT, Hyderabad during March 26-27, 2022.

Dr. Alok Krishna Sinha

- ❖ Participated and delivered lecture in a Newton Bhabha Fund Researcher Link Workshop organised by NABI, Mohali and University of Birmingham, UK, January 19, 2022.

Dr. Manoj Prasad

- ❖ Participated in Indo-US Symposium on Molecular Virology 2022, IIT-Mandi, Himachal Pradesh, February 17, 2022.
- ❖ Attended and delivered a talk on Sw5a: The Trojan Horse against ToLCNDV infection in tomato at 2nd International Conference on Recent Advances in Biotechnology and Nanobiotechnology, at Amity University, Gwalior, Madhya Pradesh, February 10, 2022.
- ❖ Participated in Newton-Bhabha Indo-UK Link Workshop on Sustaining Food Production Under Environmental Stress, DBT-NABI, Mohali, Punjab, January 18, 2022.
- ❖ Participated and delivered a lecture entitled “Sw5a: The Trojan Horse against ToLCNDV infection in tomato”, in International Conference on “Biotechnological Initiative for Climate Resilient Agriculture, /Dr. Rajendra Prasad Central Agricultural University, PUSA, Samstipur, Bihar, January 08, 2022.

Dr. Jitendra K. Thakur

- ❖ Participated and delivered a talk though online mode in Faculty Development Program on Applications of Genomics, Metagenomics and Bioinformatics in Biological Systems, Hansraj College, University of Delhi, August 16 - 20, 2021.

- ❖ Participated in Workshop on Molecular Approaches for Crop Improvement at Baba Ghulam Shah Badshah University, Rajouri, J&K, August 23, 2021.
- ❖ Participated and delivered a talk in NASI-Reliance Platinum Jubilee Award Lecture (online) at The National Academy of Sciences India, Prayagraj, UP, India, December 06, 2021.
- ❖ Participated and delivered a talk in International Conference on Biotechnological Initiative for Climate Resilient Agriculture at Department of Agricultural Biotechnology and Molecular Biology, Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar, January 07 - 09, 2022.

Dr. Gitanjali Yadav

- ❖ Attended workshop on "Machine Learning" with APBioNet, April 15 - 25, 2021.
- ❖ Participated in "Introductory Workshop on Data Science" in Collaboration with Asia Pacific Bioinformatics Network, June 10 - 18, 2021.
- ❖ Participated in INYAS Mid Year Meeting Symposium, August 13 - 15, 2021.
- ❖ Participated in workshop on AI for Delhi school teachers in collaboration with Delhi Effective Education Cluster (DeepC) and PSA office, July 23 – August 25, 2021.
- ❖ Participated in workshop on Data Science in Collaboration with NNedPro U.K., September 11 - 14, 2021.
- ❖ Participated in Hands on R Training at Cambridge University, September 25 – October 05, 2021.
- ❖ Participated in International Conference on Bioinformatics (InCoB) 2021, November 06 - 08, 2021.
- ❖ Participated as Judge at INYAS "SARANSH National Awards for PhD Thesis" December 15, 2021.
- ❖ Attended workshop on Network Biology Delhi University, February 05 - March 26, 2022.
- ❖ Participated in DST Rajasthan "Workshop on KARYA Internships", February 18, 2022.
- ❖ Participated as Judge at "National Science Day Poster Competition" NII, Delhi, February 28, 2022.
- ❖ Participated INYAS National Frontiers of Science (NatFoS) Meeting, Parwanoo, HP, March 13 - 15, 2022.
- ❖ Participated in INYAS Workshop on Big data analysis and integration in Biology, March 21 - 25, 2022.
- ❖ Participated in "TIGR2ESS Final Policy Dissemination workshop", at Chandigarh, Punjab, March 24 – 25, 2022.
- ❖ Participated in National Seminar on "Plants and Fungi- Polyphasic Characterization and Bioprospection", Jammu University, Jammu, March 25 – 26, 2022.

Dr. Ashverya Laxmi

- ❖ Attended International Women's Day celebrations and delivered a talk on theme "Women Excelling in Science" organized by Department of Biotechnology and ICGB at ICGB, New Delhi, March 8, 2022.

- ❖ Virtually participated in Science Academies Lecture workshop, Hindusthan College of Arts and Science, An Autonomous College - Affiliated to Bharathiar University, Coimbatore, February 8, 2022.
- ❖ Participated in EMBO through virtual mode and delivered a talk on “The FCS-Like Zinc fingers coordinate the ancient SnRK1-TOR dynamics in land plants” held at Portugal, October 24, 2021.

Dr. Jagdis Gupta Kapuganti

- ❖ Participated and delivered an invited talk at Indo-UK workshop, NABI Mohali, January 18, 2022.
- ❖ Attended 8th International Nitric Oxide meeting virtually organized by University of Szeged, Hungary, July 2021.

Dr. Gopaljee Jha

- ❖ Participated in the virtual meeting on Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022) hosted by CDFD, Hyderabad, February 17 - 20, 2022.
- ❖ Participated in the National Seminar on “Advances in Basic and Translational Research in Biology (ABTRiB)” organized by Department of Molecular Biology and Biotechnology, Tezpur University, March 11 – 12, 2022.

Dr. Senthil-Kumar Muthappa

- ❖ Participated in 8th International Conference on “Plant Pathology: Retrospect and Prospects”, organized by Indian Phytopathological Society New Delhi, March 23 - 26, 2022.
- ❖ Participated in Molecular Intricacies of Plant Associated Microorganisms (MIPAM-2022): An interactive virtual meeting organized by Center for DNA fingerprinting and diagnostics (CDFD), Hyderabad, February 17 - 20, 2022.
- ❖ Participated in 5th International Agronomy Congress (IAC) Symposium IV: New Vistas in Biotic and Abiotic Stress Management organized by Indian Society of Agronomy, Hyderabad, November 23 - 27, 2021.

Dr. Jitender Giri

- ❖ Participated and delivered an invited talk entitled “The use of membrane lipid remodeling for improving P use efficiency in plants: at National Conference on Plant Physiology 2021 at ICAR-NIASM, Pune, December 09, 2021.

Dr. Swarup K. Parida

- ❖ Participated and delivered lecture on “Next-generation Molecular Breeding for Genetic Improvement of Chickpea” in TIGS-BCIL Webinar on “Translating genomics for next generation crop improvement”, June 10, 2021.
- ❖ Participated and delivered lecture on “SNP Genotyping: Applications in Germplasm Characterization for Accelerated Crop Improvement” in A Virtual Training Programme on “Plant Genetic Resources Management and Utilization”, ICAR-NBPGR, July 27, 2021.

Dr. Pinky Agarwal

- ❖ Participated and delivered a talk in 42nd Annual Meeting of Plant Tissue Culture Association (India) & International Symposium on Advances in Plant Biotechnology and Genome Editing-2021 through online mode organized by: ICAR-Indian Institute of Agricultural Biotechnology, Ranchi, India, April 09, 2021.
- ❖ Participated and session chair in iCRISPR-2021, a National Conference on "CRISPR/Cas: from Biology to Technology", via virtual mode organized by SRM University and IBAB, November 26, 2021.
- ❖ Participated and acted as moderator for National Webinar on Women's Day "United we are" by NIPGR, New Delhi, March 08, 2022.
- ❖ Participated and acted as moderator for National Webinar on "Fascination of Plants Day" organized by NIPGR, New Delhi, May 31, 2021.
- ❖ Participated and acted as moderator for seminar on occasion of "Hindi Pakhwada", organized by NIPGR, New Delhi, September 13, 2021.

Dr. Jyothilakshmi Vadassery

- ❖ Participated and delivered an invited lecture on "Improving plant defense against Lepidopteran insect pests using functional genomics and metabolomics" at XV Agricultural Science Congress, BHU, Varanasi, November 13 - 16, 2021.

Dr. Ashish Ranjan

- ❖ Participated in Lawrence Bogorad Memorial Symposium - Current Research Trends in Photosynthesis organized by Indian Society of Plant Physiology through online mode, August 29, 2021.
- ❖ Participated virtually in International Webinar on Plant Developmental Plasticity: A Molecular Perspective (PDPAMP) organized by Acharya Nagarjuna University, Guntur and IISER, Tirupati, September 27 – 29, 2021.
- ❖ Attended XV Agricultural Science Congress by Banaras Hindu University, Varanasi, November 15 – 19, 2021.

Dr. Amar Pal Singh

- ❖ Attended "Weinheim Symposium on Plant Biology in the 21st Century" through online mode, October 8, 2021.
- ❖ Participated and delivered a talk on "Roots of plant life: Mechanisms of root adaptation to nutrient deficiencies" in Science Setu webinar series at NIPGR New Delhi, January 28, 2022.

Dr. Hasthi Ram

- ❖ Participated and delivered a talk entitled "Dissecting the nutrient partitioning mechanism in rice grain using spatially resolved gene expression profiling" at National Agri-Food Biotechnology Institute (NABI), Mohali, January 21, 2022.

Students

Mr. Bikash Raul, Ms. Akanksha Bhardwaj and Ms. Deevita Srivastava (PI: Dr. Senjuti Sinharoy)

- ❖ Participated and presented poster during 14th European Nitrogen Fixation Conference (ENFC 2021), October 2021.

Ms. Priya Upadhyay (PI: Dr. Senjuti Sinharoy)

- ❖ Participated in conference on 14th European Nitrogen Fixation Conference (ENFC 2021), October 2021.

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

- ❖ Workshop attended on CRISPR/Cas based genome editing technology in the 42nd Annual Meeting of Plant Tissue Culture Association (INDIA) & International Symposium on Advances in Plant Biotechnology and Genome Editing-2021 (APBGE-2021), organized by ICAR-Indian Institute of Agricultural Biotechnology, Ranchi in association with Plant Tissue Culture Association-India (PTCA-I), April 08 – 10, 2021.

Mr. Sanjeet Mahtha (PI: Dr. Gitanjali Yadav)

- ❖ Participated and delivered oral presentation entitled “START Finder Tool (START FiT): A comprehensive web resource for identification and analysis of START domains in the plant kingdom”, at 5th International Symposium on Bioinformatics (InSyB2021) held at Bezmialem Vakif University, Istanbul, Turkey, December 15 - 17, 2021.
- ❖ Participated and poster presentation entitled “Complex Networks reveal biological functions of START domains in rice: Insights from Computational Systems Biology” at the 10th International Conference on Complex Networks and their Applications (CNA) held at Madrid, Spain, November 30 - December 02, 2021.

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

- ❖ Participated and delivered an online talk entitled “Elucidating the heat mediated regulatory landscape of SIHsf-18 in tomato” at American Society for Plant Biologist (ASPB) - Plant Biology 2021 Worldwide Summit (July 19 - 23), July 20, 2021.

Dr. Sombir Rao, Ms. Sarita Jha, Ms. Chandni Bansal, Ms. Apoorva Gupta Ms. Celine Sorin, Ms. Martin Crespi and Dr. Saloni Mathur (PI: Dr. Saloni Mathur)

- ❖ Participated and presented poster entitled “The role of a conserved HSF:miR169:NF-YA loop during heat stress in Arabidopsis and tomato (*Solanum lycopersicum*) thermotolerance” in Plant Cell Atlas Symposium 2021, December 09 - 10, 2021.

Ms. Jaishri Rubina Das, Dr. Sombir Rao and Dr. Saloni Mathur (PI: Dr. Saloni Mathur)

- ❖ Participated and presented a poster entitled “Extricating the heat mediated post-transcriptional regulation of Hsf18 in tomato”, Plant Cell Atlas Symposium 2021, December 09 - 10, 2021.
- ❖ Participated and presented poster on “Elucidating the heat mediated regulatory landscape of SIHsf-18 in tomato” American Society for Plant Biologist ASPB, July 19 - 23, 2021.

Ms. Chandni Bansal, Dr. Sombir Rao and Dr. Saloni Mathur (PI: Dr. Saloni Mathur)

- ❖ Participated and presented a poster on “Response of miRNA172 and its targets to combined heat and drought stress in tomato (*Solanum lycopersicum* L.)” American Society for Plant Biologist ASPB, July 19 - 23, 2021.

Study Tours of the Institute

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

- ❖ B.Tech. (Biotechnology) students of Sardar Vallabhbhai Patel University of Agriculture and Technology, Modipuram, Meerut, UP on March 03, 2022.
- ❖ B.Sc. (Microbiology) students of Shaheed Rajguru College of Applied Sciences for Women (University of Delhi) on March 16, 2022.

Symposia/Workshop/ Special Lectures/Events Organized

Swachhta Pakhwada (May 01 – 15, 2021)

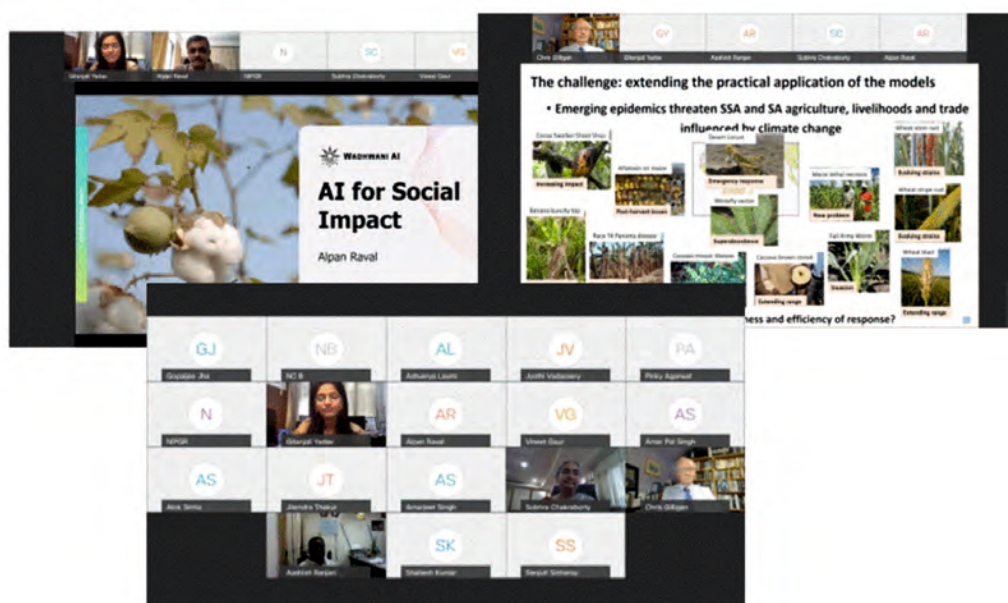
Swachhta Pakhwada has been observed in the Institute from 1st to 15th May. The activities like pledge taking ceremony, cleanliness drive by senior officers & scientists and 'Swachhta Pakhwada Awards' were not undertaken this year, due to preventive measures imposed by the Government to avoid spread of Covid- 19 pandemic. The instructions issued during Swachhta Hi Seva (SHS) campaign have been followed up with the focus on action towards effective ban of Single Use Plastic (SUP). In this connection, following measures have been taken:

- ❖ Institute has prohibited the use of Single Use Plastic (SUP) in its Campus.
- ❖ The Institute has discontinued use of PET Water Bottles, Plastic Glasses, Plastic folders, trays etc. in its day-to-day official activities including meetings, workshops, conference, etc. Further, Institute is in the process of reducing the use of plastic in its Campus and to replace it with eco-friendly alternatives.

The whole idea of this exercise was to bring about mass awareness and lasting behavioural change about cleanliness, which is also relevant in view of Covid -19 pandemic and to ensure an improved work culture and work environment including hygiene and cleanliness of the work place.

Webinar series entitled “Decoding the genomics with big data analytics” & “Predictive Modelling and AI for Biodiversity” (June 03 & 22, 2021)

NIPGR has started the NIPGR-webinar series on thematic research areas, where experts in the relevant fields are invited to deliver lectures. Towards this, NIPGR has organized webinars entitled “Decoding the genomics with big data analytics” & “Predictive Modelling and AI for Biodiversity” during June 03 & 22, 2021 respectively.



Webinar

Hindi Workshop on “हिंदी टंकण एवं अनुवाद” (June 17, 2021)

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 “हिंदी टंकण एवं अनुवाद” was organized on June 17, 2021 at the Institute. The staff members, researchers and students of the Institute enthusiastically participated in the said workshop.

International Yoga Day (June 21, 2021)

The 7th International Day of Yoga (IDY) has been celebrated on June 21, 2021 with the motto to promote health & well-being of everyone. On this occasion the members of NIPGR family joined the Common Yoga Protocol (CYP) through digital and social media platforms. The objective of this exercise is not just a one-day celebration but it aims to make all participants aware of the immense rewards that the pursuit of Yoga can bring to the individual and thereby inspire them to practice Yoga on regular basis. Yoga is an invaluable gift of India's ancient tradition. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By making Yoga an integral part of our lifestyle, a healthy life can be attained both physically and emotionally. This has been an effort to inspire all members of NIPGR community to continue the practice of Yoga, beyond Yoga Day.

Hindi Pakhwara (September 1-14, 2021)

Hindi Pakhwara was observed during September 01-14, 2021 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. A Hindi Seminar on “वन्यजीव फोरेंसिक जाँच” was organized on September 13, 2021, to exhibit the effortless use of Hindi in every field of research & education.

In addition to above, Essay Competition, and Poetry Recitation Competition were organized to commemorate ‘Hindi Diwas’ on September 14, 2021. 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. Further, posters/standees of important quotations in Hindi were displayed on prominent locations of the Institute to remind the members of NIPGR our constitutional and statutory obligations towards Hindi; inspire and motivate them to transact more and more of their official work in Hindi.

Hindi Workshop on “राजभाषा संबंधी नीति एवं निदेश” (September 28, 2021)

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 “राजभाषा संबंधी नीति एवं निदेश” was organized on September 28, 2021 at the Institute. The staff members, researchers and students of the Institute enthusiastically participated in the said workshop.

Vigilance Awareness Week (October 26 – November 01, 2021)

The ‘Vigilance Awareness Week’ was observed by NIPGR during October, 26 - November 01, 2021 with the theme is ‘Independent India @ 75: Self Reliance with Integrity’. An Integrity Pledge was organized on October 26, 2021, to create awareness, against corruption and refraining from indulging in dishonest and unethical activities, in which staff members/students/researchers of the

Institute participated. To sensitize against corruption and other unethical activities, a slogan writing competition on the theme of VAW 2021 has been organized during this period in the Institute. All the members of NIPGR were sensitized to promote integrity, transparency and accountability in their public life, by circulating the CVC instructions and displaying banners etc. The officials of NIPGR were motivated to follow the anti-corruption practices in their official procedures.

Rashtriya Ekta Diwas (National Unity Day) – (October 31, 2021)

The Birth Anniversary of Sardar Vallabhbhai Patel has been commemorated as 'Rashtriya Ekta Diwas (National Unity Day)' on 31st October. In order to celebrate the occasion in a befitting manner and reinforce the message of national unity and awareness about Sardar Patel's stellar contributions to the building modern India, all members of the Institute have taken the Rashtriya Ekta Diwas Pledge on October 31, 2021.

Annual Student's Research Symposium – SciEfflux-2021 (November 24 – 25, 2021)

The Student Research Symposia (SciEfflux – 2021) was organized during November 24 - 25, 2021. 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, students and researchers of the Institute participated in the deliberations of the symposia.



Inauguration of Annual Student's Research Symposium – SciEfflux-2021

Constitution Day (November 26, 2021)

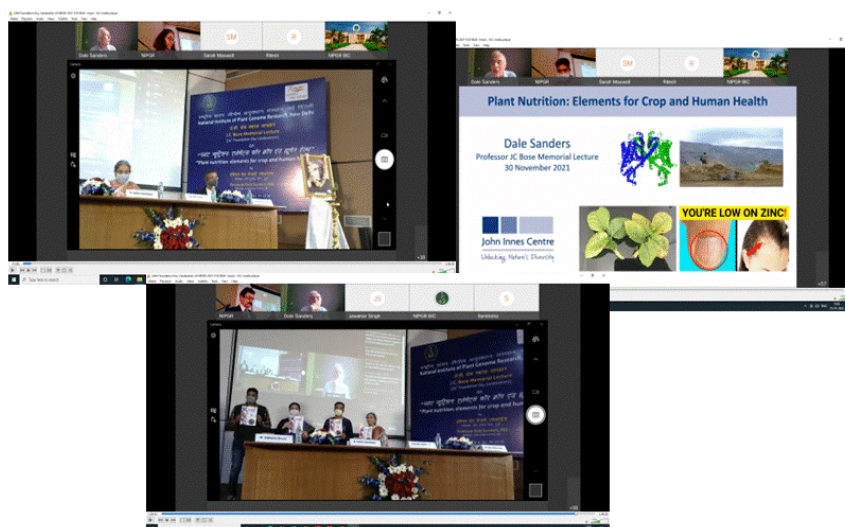
The 'Constitution Day' has been observed on November 26, 2021 at NIPGR. On this occasion, the Preamble to the Constitution has been read out by the members of NIPGR community with the Hon'ble President of India (through virtual mode) who led the celebrations from the Central Hall of the Parliament.



Celebration of Constitution Day through virtual mode

Foundation Day (November 30, 2021)

The Institute celebrated its 24th Foundation Day by organizing “J. C. Bose Memorial Lecture” on November 30, 2021. On this occasion Institute has organized a public lecture on “*Plant nutrition: elements for crop and human health*”, delivered via virtual mode by Prof. Dale Sanders, Director, John Innes Centre, UK. 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 2021, Best Paper Award 2021 and winners of the events conducted during Hindi Pakhwara. The invited guests as well as staff and students of the Institute attended the function through virtual mode.



Foundation Day Lecture

India International Science Festival (IISF) 2021 (December 10 – 13, 2021)

In order to give wide publicity to IISF 2021 and as part of the public outreach program to popularize science and showcase the various facets of research and development to young innovators, students, teachers, and individuals interested in the field of natural sciences, NIPGR participated and showcased achievements/products of the Institute in the India International Science Festival (IISF) 2021 organized at Panaji, Goa during December 10-13, 2021.



Participation of the Institute in the IISF 2021

Hindi Workshop on “राजभाषा हिंदी और तकनीकी आयाम” (December 21, 2021)

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 “राजभाषा हिंदी और तकनीकी आयाम” was organized on December 21, 2021 at the Institute. Shri Pawan Koundal, Assistant Editor, Indian Institute of Mass Communication, New Delhi conducted the workshop. The staff members, researchers and students of the Institute enthusiastically participated in the said workshop.

International Mother Tongue Language Day (February 22, 2022)

International Mother Tongue Language Day has been celebrated on February 22 2022. All members of the NIPGR community have joined the live broadcast of the program “भारत भारती भाषा महोत्सव: शुभारंभ” organized by the Science Ministries of the Government of India, coordinated by Ministry of Earth Sciences, Government of India.

Mega Expo Participation ('Vigyan Sarvatra Pujyate') (February 22 – 28, 2022)

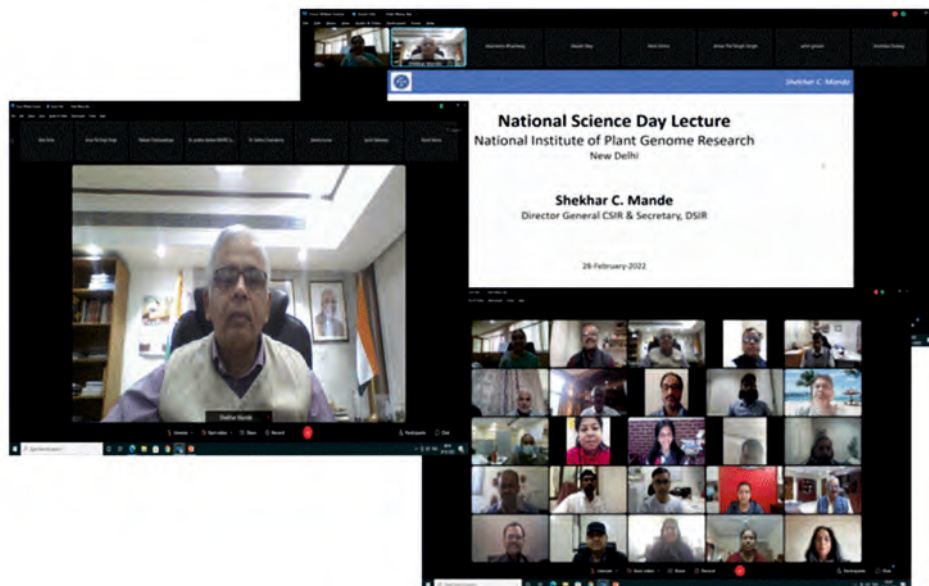
As part of the public outreach program to popularize science and showcase the various facets of research and development to young innovators, students, teachers, and individuals interested in the field of natural sciences, Institute participated in the Festival of Science & Technology organized under Azadi Ka Amrit Mahotsav: Mega Expo Participation ('Vigyan Sarvatra Pujyate') during February 22-28, 2022 at Jawaharlal Nehru Stadium, New Delhi.



Mega Expo Participation

National Science Day (February 28, 2022)

The National Science Day has been celebrated in the Institute on February 28, 2022. Dr. Shekhar C. Mande, Secretary, DSIR and Director General, Council of Scientific & Industrial Research (CSIR) delivered the virtual lecture on this occasion.



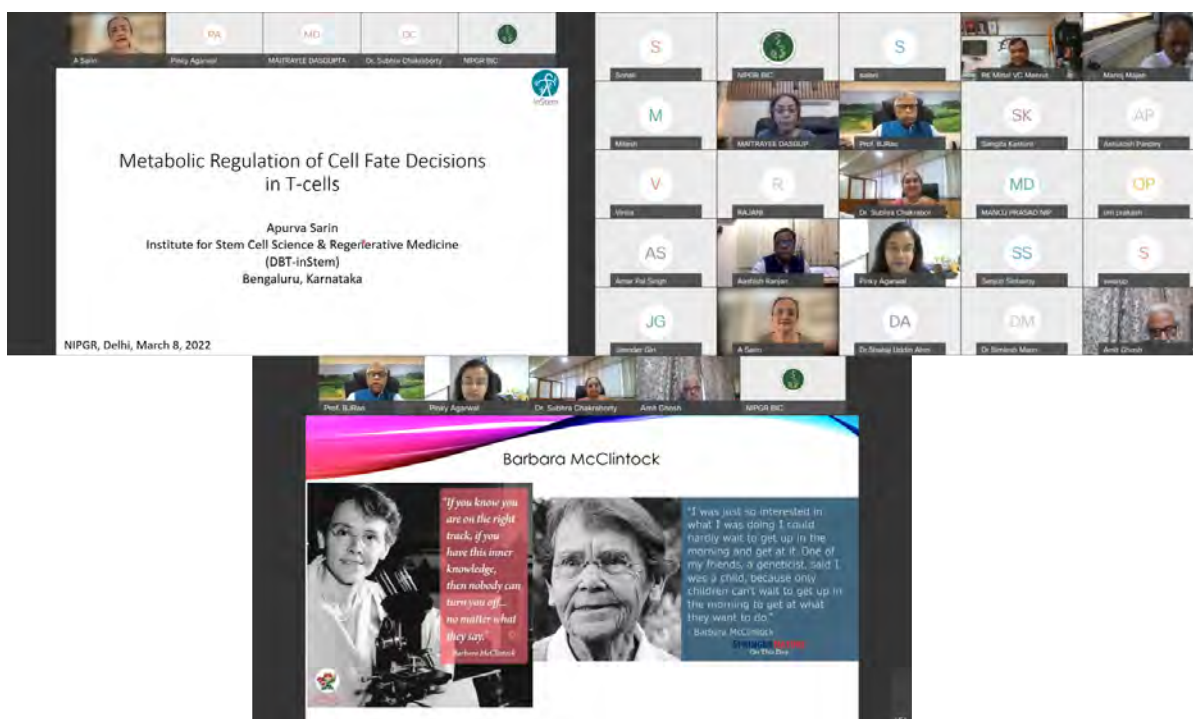
National Science Day Lecture

Education tours for outside students (March 03 & March 16, 2022)

NIPGR has organized virtual education tours for students of (i) Sardar Vallabhbhai Patel University of Agriculture and Technology, Modipuram, Meerut on March 03, 2022 and (ii) Shaheed Rajguru College of Applied Sciences of Women, University of Delhi on March 16, 2022. These events included lectures and interactions with the students.

International Women's Day (March 08, 2022)

NIPGR has organized a Virtual Webinar on 'United We Are' to celebrate the International Women's Day 2022 as part of Celebrating 75 years of India's Independence-Azadi Ka Amrit Mahotsav' on March 08, 2022. Further, the members of NIPGR community have joined the virtual event streamed live on ICGEB New Delhi YouTube Channel, organized by DBT in collaboration with ICGEB on the theme 'Women Excelling in Science' on March 08, 2022 on the occasion of International Women's Day as a part of Celebrating 75 years of India's Independence-Azadi Ka Amrit Mahotsav'.



Webinar

Hindi Workshop on “हिंदी टंकण, अनुवाद एवं प्रशासनिक शब्दावली” (March 24, 2022)

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 “हिंदी टंकण, अनुवाद एवं प्रशासनिक शब्दावली” was organized on March 24, 2022 at the Institute. The staff members, researchers and students of the Institute enthusiastically participated in the said workshop.

iConnect event under ANB “Nutriomics for Better Health” (March 30, 2022)

The Institute organized a lectures series on the theme “Nutriomics for Better Health” as a part of iConnect event under ANB. The event included presentations by eminent scientists namely, Dr. Ram Vishwakarma, Dr. K. K. Narayanan, Prof. Jyoti Prakash Tamang, Dr. T. R. Sharma and Dr. Bharat Char, followed by poster presentations, exhibition of related technologies and panel discussion.



i-Connect Event

Other activities at NIPGR

Launch of NIPGR First Translational Facility and Indian Rice panArray (IndRA)/ Indian Chickpea panArray (IndiCA).

NIPGR First Translational Facility Network has been launched and Indian Rice panArray (IndRA)/Indian Chickpea panArray (IndiCA) has been released by Dr. Jitender Singh, Hon'ble Minister of State (IC) of the Ministry of S&T and Earth Sciences on October 08, 2021 at NIPGR. The Translational Facility at Bulandshahr, UP once equipped with Advanced Speed Breeding Platform High-Throughput (HTP) Field Phenotyping, large-scale field facility and as well as developed Pan-genome SNP Genotyping Arrays are intended to serve for National Molecular Breeding Effort in order to drive crop improvement programme and plant biotechnology research by providing new technologies and improved genomic tools, especially to mark the 75th year of Indian Independence, in celebration of Azadi Ka Amrit Mahotsav.



Dr. Jitender Singh, Hon'ble Minister of State (IC) of the Ministry of S&T and Earth Sciences gracing the occasion

Inauguration of "SWATI" (Science for Women: A Technology and Innovation) portal

In recognition of the wide-ranging contributions by Women in Science, the DBT had earlier announced an online Portal "SWATI" (Science for Women: A Technology and Innovation) in collaboration with NIPGR, dedicated to Indian Women Scientists and Technologists. The Portal is intended to serve as a gateway to view the expertise and contributions of Indian Women in Science, especially to mark the 75th year of Indian Independence, in celebration of Azadi Ka Amrit Mahotsav. Dr. Renu Swarup, Secretary, Department of Biotechnology and Department of Science & Technology, Govt. of India inaugurated the SWATI Portal at the event held at NIPGR on October 25, 2021.



Inauguration of "SWATI" Portal

National Genomics and Genotyping Facility (NGGF)

The National Genomics and Genotyping Facility (NGGF) has been established by Department of Biotechnology at the National Institute of Plant Genome Research (NIPGR), New Delhi. NGGF would serve as a "Single-window service system" providing advanced genomics-based solutions to the custom research stakeholders of Agriculture Biotechnology. The major objective of this facility is to fast-track development of improved varieties using genomics assisted breeding. Under this facility, fluorescent dye-labelled SNP genotyping platform (LGC Array Tape/KASP) with Real time PCR, Array-based SNP genotyping platform (Affymetrix Gene Titan Multichannel instrument), and NGS-based sequencing and genotyping platform (NovaSeq 6000 and NextSeq 550) have been established. The facility supports SNP genotyping, germplasm characterization, GWAS, foreground and background analysis for MAS, genetic fingerprinting and genetic purity testing, diversity analysis, Crispr-cas9 genome editing validation, genome resequencing/de novo sequencing-based SNP genotyping, decoding of draft genome, identification of novel SNPs/structural variants (SNPs, InDels, CNVs, etc.), genomic selection, and targeted genome sequencing-based SNP genotyping. Validation of Array-based SNP genotyping using 50K rice SNP chip and sequencing-based SNP genotyping has been successfully completed. Also, genotyping work of the DBT-sanctioned mission projects especially the Chickpea mission mode project was undertaken in the facility and is in progress.

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

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. Phytohormone profiling and metabolomics-based phenotyping has been done in diverse crop crops under abiotic and biotic stress as evident from publications. 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. 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. Besides that, NCR laboratories and institutes interested in plant science such as JNU, University of Delhi, ICGEB, IISc, RCB and IARI also have easy access to facilities. So far, the facility has standardized methods and run large number of samples for internal and external users from all over the country. Multiple projects of internal and external users have utilized the facility with research publications acknowledging the support.

Gene Function Analysis Platform for Crops (GFAPC)

The objective of the facility is to carry out highly efficient plant transformation in selected crops and method standardization for new plants in future. Efficient and reproducible plant transformation and tissue culture techniques have been developed for developing genetically engineered rice, brassica, tomato and chickpea. The facility has raised several transgenic plants (of overexpression/ knockdown/ knockout/ gene editing category) to assess the gene's functions in crop plants like rice, brassica, tomato and chickpea. Plant transformation and screening techniques have been developed for raising marker free transgenics. Several CRISPR/Cas9 mediated edited plants have been developed in rice and chickpea.

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 m² of environmentally controlled plant growth area dedicated to studying the effects of environmental variables on crop growth, development, and productivity. Various crops such as rice, chickpea, tomato, mustard, millets, banana and groundnut are being grown regularly in the facility. 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.

Computational and Bioinformatics Facility (CBBF)

The CBBF at NIPGR is engaged in providing the necessary IT related infrastructure for the institute. This facility also hosts the NIPGR web servers and other online resources that have been

developed for research, e-governance and administration within NIPGR. In addition, the CBBF handles web routing, access to WiFi network, IT-based training and capacity building of personnel, quarterly inspection (internal audits), all website related certification (required by Gol), and other Cyber-Infrastructure related issues. The CBBF currently hosts forty online tools and databases, the full list is available at www.nipgr.ac.in/ https://nipgr.ac.in/facilities/nipgr_database.php. In the current year, the CBBF has acquired 1 Petabyte (PB) digital storage system to meet the foreseeable increase in NIPGR research requirements. We are now in the process of doubling our current capacity by 1.920 PB. This will enable NIPGR to host and provide cloud-based storage to all users with scale-out quota management and ease of provisioning. Apart from the expanded storage capacity, CBBF has also initiated a complete renovation of the NIPGR IT Networking infrastructure this year, after a gap of ten years. This includes a complete restructuring of the LAN and fibre optic cables, expansion of WiFi access points throughout the NIPGR gardens and buildings, creation of VLANs across various departments to improve access speeds as and overall IT experience at the institute.

Infrastructure /Construction Activities for Institute

- ❖ MoU signed between NIPGR and CPWD INA Delhi for construction Buildings under Phase-III at NIPGR Campus New Delhi
 - ❖ Work Under Construction for extension of CIF Block at NIPGR.
 - ❖ Tender invited for Construction of Guest House Cum Cafeteria at NIPGR.
- ❖ MoU signed between NIPGR and CPWD Agra Division for construction and establishing the NIPGR Translational Facility for Molecular Breeding at Bulandshahr UP.

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 produced from imperfect fold-back structures rooted into endogenous primary transcripts of miRNA (pri-miRNA), the function of which is not fully understood. However, recent studies have revealed that these pri-miRNAs 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 identify possible miPEPs in rice that may play important role in regulating different aspects of plant growth and development. Also, we are trying to identify their downstream targets and upstream regulators.

In this study so far, we identified miPEPs that are biologically active and positively influences the expressions of their respective miRNAs in rice. We have found that the selected miPEPs (miPEP156, 159, 164, 166, 396 and 398) are not interacting with any of the selected kinases (MPK3, MPK4 and MPK6) in the protein-protein interaction studies using Y2H and BiFC analysis revealed that. However, we have re-do the experiments to confirm their actual interactions as well as phosphorylation by MAPKs in rice. miPEP156 and miPEP398 over-expression constructs were then transiently transformed into rice seedlings and RT-PCR was conducted. Increase in expression of their respective miRNAs was seen and no change in expression of other miRNAs was found. Decrease in expression of target genes such as SPL13, SPL16 and IPA1 for miR156 and CSD1 and CSD2 for miR398 was also observed. miPEP156 and miPEP398 over-expression and their promoter constructs were also prepared in luciferase expression vectors (pGWB402 and pGWB435) to identify miPEPs interaction with their promoters. miPEP:gfp constructs were transiently transformed into tobacco leaves for localization study revealed that all the miPEPs are localized into the cytoplasm, cytoplasmic membrane and nuclear membrane.

Science Setu Webinar Series

Institute have been organising Science Setu webinar series as a part of "Azadi ka Amrit Mahotsav" to commemorate "75 years of India's Independence".

S. No.	Speaker	Title	Date
1.	Dr. Manoj Prasad	Feeding the 10 billion: a genomics perspective	April 09, 2021
2.	Dr. Senthil K. Muthappa	Stress interaction and combined stress in plants: physiological and molecular understanding	April 23, 2021
3.	Dr. Debasis Chattopadhyay	Milestones in Plant Genomics	April 28, 2021
4.	Dr. Alok K. Sinha	Signal Transduction in Plants and Protein-Protein Interaction	May 13, 2021
5.	Dr. Aashish Ranjan	"Light at the beginning of the tunnel Milestones in Photosynthesis Research	May 21, 2021
6.	Dr. Senjuti Sinharoy	Plant-Microbe Symbiosis: An Avenue to Sustainable Agriculture	May 28, 2021
7.	Dr. Jyothilakshmi Vadassery	Chemical Ecology of Plant-Insect Interactions	June 11, 2021
8.	Dr. Gopaljee Jha	Harnessing plant associated microbes for sustainable agriculture	June 25, 2021
9.	Dr. Ashverya Laxmi	Understanding role of sugar signal transduction in regulating plant growth development and stress responses	July 09, 2021
10.	Dr. Shailesh Kumar	Bioinformatics: Looking It My Way	July 29, 2021
11.	Dr. Pinky Agarwal	Rice Grain: A Staple Food for All	August 13, 2021
12.	Dr. Amarjeet Singh	Lipid signaling for stress tolerance in plants	August 25, 2021
13.	Dr. Saloni Mathur	The 'dark matter' rises: the fascinating world of regulatory non-coding RNAs in plants	September 10, 2021
14.	Dr. Hasthi Ram	Making India Malnutrition Free: By Improving Nutritional Qualities of Rice Grain	September 24, 2021
15.	Dr. Aashish Ranjan	Genomics approaches to investigate plant structure and function	October 11, 2021
16.	Dr. Ashutosh Pandey	Designing Value-Added Food Crops for Better Health and Nutrition	October 22, 2021

S. No.	Speaker	Title	Date
17.	Dr. Jagadis Gupta Kapuganti	Nitric oxide: Multifaceted and fascinating signalling molecule in plants	November 12, 2021
18.	Dr. Manoj Majee	How does seed stay alive for prolong period of time?"	November 26, 2021
19.	Dr. Jitender Giri	Targeting Roots for Future Agriculture	December 10, 2021
20.	Dr. Naveen C. Bisht	Plant Secondary Metabolism in the Modern Era	December 24, 2021
21.	Dr. Debasis Chattopadhyay	Use of DNA sequencing in public life	January 14, 2022
22.	Dr. Amar Pal Singh	Roots of plant life: Mechanisms of root adaptation to nutrient deficiencies	January 28, 2022
23.	Dr. Vineet Gaur	Exploring the biological world at atomic level detail	February 11, 2022
24.	Dr. Sabhyata Bhatia	Molecular Markers as Tools for Genome Analysis	March 04, 2022

Seminar Series (2021-22)

Scientific Lectures

NIPGR Webinar Series "Decoding the Genomes with Big Data Analytics" on 3rd June 2021

Prof. Zhangjun Fei Dept of Plant Sciences, University of Cambridge, UK	Phased genome assemblies and pan-genomes shed light on apple origin and domestication	June 03, 2021
Prof. Anindya Dutta Department of Genetics, The University of Alabama, Birmingham, USA	New worlds revealed by bioinformatics: tRFs, lncRNAs and eccDNA	June 03, 2021
Dr. Viswanathan Chinnusamy Indian Agricultural Research Institute (IARI), New Delhi, India	Phenomics for genetic improvement: water and nitrogen use efficiency in rice and wheat	June 03, 2021

NIPGR Webinar Series "Predictive Modelling and AI for Biodiversity" on 22nd June 2021

Prof. Christopher Gillian Boyce Thompson Institute, Cornell University, New York, USA	Crop Epidemiology	June 22, 2021
Dr. Alpan Raval WadhvaniAI, Mumbai, India	AI For Social Good	June 22, 2021
Dr. Gitanjali Yadav National Institute of Plant Genome Research, New Delhi, India	Biodiversity Informatics	June 22, 2021

NIPGR Webinar Series "United We Are" to celebrate International Women's Day 2022 on 8th March 2022

Prof. Basuthkar J Rao Vice-Chancellor, University of Hyderabad	India has not harnessed women power enough so far: Why and way forward?	March 08, 2022
Prof. Basuthkar J Rao Vice-Chancellor, University of Hyderabad	DNA damage response in the context of tissue homeostasis: A mechanistic perspective	March 08, 2022
Prof. Apurva Sarin, Institute for Stem Cell Science and Regenerative Medicine (inStem), Bangalore	Metabolic Regulation of Cell Fate Decisions in T-cells	March 08, 2022
Prof. Maitrayee Dasgupta University of Calcutta	Evolution of Intracellular Symbiosis between Plants and Diazotrophs	March 08, 2022

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 351 students have registered for the Programme leading to Ph. D. degree to JNU since the Academic year 2001-2002 and out of these, 165 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 2021-22

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
1.	Adesh Kumar	Dr. Saloni Mathur
2.	Aman	Dr. Debasis Chattopadhyay
3.	Anurag Panchal	Dr. Manoj Prasad
4.	Ashis Majhi	Dr. Hasthi Ram
5.	Banita Yadav	Dr. Hasthi Ram
6.	Iqra Nafees Khan	Dr. Subhra Chakraborty
7.	Kajal	Dr. Naveen Chandra Bisht
8.	Kavita Joshi	Dr. Gitanjali Yadav
9.	Kratika Singh	Dr. Amar Pal Singh
10.	Lavanya Mittal	Dr. Alok Krishna Sinha
11.	Mahesh Kumar Panda	Dr. Aashish Ranjan
12.	Mandavi Pandey	Dr. Jitender Giri
13.	Mandira Roy	Dr. Gopaljee Jha
14.	Mohit Kumar	Dr. Subhra Chakraborty
15.	Pragya Nalwa	Dr. Subhra Chakraborty
16.	Rajani Yadav	Dr. Gopaljee Jha
17.	Sanjib Bal Samant	Dr. Jagadis Gupta Kapuganti
18.	Sapna	Dr. Manoj Prasad / Dr. Sabhyata Bhatia
19.	Shivangi Mahawar	Dr. Manoj Majee
20.	Shubhashish Ranjan	Dr. Senthil-Kumar Muthappa
21.	Tuhin Das	Dr. Manoj Prasad
22.	Uttam Pal	Dr. Alok Krishna Sinha
23.	Vasundara Devi S	Dr. Aashish Ranjan

Students pursuing Ph. D. at the Institute (excluding those enrolled during 2021-2022)

Sl. No.	Name of the Student	Name of the Supervisor/Co-supervisor
1.	Mr. Sanjeet Kumar Mahtha	Dr. Gitanjali Yadav
2.	Ms. Sarita Jha	Dr. Saloni Mathur
3.	Mr. Hari Gowthem G	Dr. Manoj Prasad
4.	Mr. Jathar Vikram Dattatray	Dr. Aashish Ranjan
5.	Ms. Akanksha Pareek	Dr. Subhra Chakraborty / Dr. Niranjan Chakraborty
6.	Ms. Kriti Tyagi	Dr. Gopaljee Jha
7.	Ms. Megha Choudhary	Dr. Debasis Chattopadhyay
8.	Ms. Lalita Pal	Dr. Debasis Chattopadhyay
9.	Ms. Kirti	Dr. Alok Krishna Sinha
10.	Ms. Sumaira Tayyeba	Dr. Alok Krishna Sinha
11.	Ms. Archana Tiwari	Dr. Ashverya Laxmi
12.	Mr. Gourav Singh	Dr. Sabhyata Bhatia
13.	Ms. Juhi Kumari	Dr. Naveen C. Bisht
14.	Ms. Chandni Bansal	Dr. Saloni Mathur
15.	Ms. Laxmi	Dr. Swarup K. Parida
16.	Mr. Virevol Thakro	Dr. Swarup K. Parida
17.	Mr. Ramgopal Prajapati	Dr. Jyothilakshmi Vadassery
18.	Md. Yasir Arafat	Dr. Subhra Chakraborty
19.	Ms. Archana	Dr. Subhra Chakraborty
20.	Ms. Latika Bhola	Dr. Subhra Chakraborty
21.	Ms. Aleena Francis	Dr. Debasis Chattopadhyay
22.	Mr. Gopal Banerjee	Dr. Alok Krishna Sinha
23.	Mr. Baljinder Singh	Dr. Sabhyata Bhatia
24.	Mr. Anirban Chakraborty	Dr. Sabhyata Bhatia
25.	Mr. Jawahar Singh	Dr. Praveen Verma
26.	Ms. Shambhavi	Dr. Manoj Prasad
27.	Ms. Harshita Bharti Saksena	Dr. Ashverya Laxmi
28.	Mr. Abhijit Hazra	Dr. Manoj Majee
29.	Ms. Ruchi Tiwari	Dr. Naveen Chandra Bisht
30.	Ms. Namrata Singh	Dr. Jagadis G. Kapuganti
31.	Ms. Pooja Singh	Dr. Jagadis G. Kapuganti
32.	Ms. Joyati Das	Dr. Gopaljee Jha
33.	Ms. Jaishri Rubina Das	Dr. Saloni Mathur
34.	Ms. Poonam Panchal	Dr. Jitender Giri
35.	Ms. Udit Basu	Dr. Swarup K. Parida
36.	Mr. Vinod Kumar Prajapati	Dr. Jyothilakshmi Vadassery
37.	Mr. Sunil Kumar	Dr. Subhra Chakraborty /

38.	Ms. Atreyee Sengupta	Dr. Niranjan Chakraborty
39.	Ms. Paheli Malakar	Dr. Subhra Chakraborty
40.	Ms. Ankita Shree	Dr. Debasis Chattopadhyay
41.	Ms. Ritu Singh	Dr. Praveen Verma
42.	Ms. Rekha Agrawal	Dr. Praveen Verma
43.	Mr. Shubhashis Das	Dr. Jitendra K. Thakur
44.	Ms. Citu	Dr. Jitendra K. Thakur
45.	Mr. Vishal Varshney	Dr. Gitanjali Yadav
46.	Ms. Richa Priyadarshini	Dr. Manoj Majee
47.	Ms. Priya Jaiswal	Dr. Pinky Agarwal
48.	Ms. Aditi Dwivedi	Dr. Pinky Agarwal
49.	Ms. Sushma Sagar	Dr. Aashish Ranjan
50.	Ms. Shafaque Zahra	Dr. Amarjeet Singh
51.	Mr. Ajeet Singh	Dr. Shailesh Kumar
52.	Mr. Bikash Raul	Dr. Shailesh Kumar
53.	Mr. Jogindra Naik	Dr. Senjuti Sinha Roy
54.	Ms. Ruchika	Dr. Ashutosh Pandey
55.	Ms. Shilpa Singh	Dr. Ashutosh Pandey
56.	Mr. Dhanraj Singh	Dr. Subhra Chakraborty
57.	Ms. Manisha	Dr. Alok Krishna Sinha
58.	Mr. Pawandeep Singh Kohli	Dr. Sabhyata Bhatia
59.	Ms. Pallabi Thakur	Dr. Jitendra K. Thakur / Dr. Jitender Giri
60.	Mr. Abhishek Prasad	Dr. Jitendra K. Thakur
61.	Mr. Prakhar	Dr. Gitanjali Yadav
62.	Mr. Sanjay	Dr. Ashverya Laxmi
63.	Mr. Mohan Varghese	Dr. Ashverya Laxmi
64.	Ms. Bhanu Malhotra	Dr. Naveen Chandra Bisht
65.	Mr. Sourav Chatterjee	Dr. Naveen Chandra Bisht
66.	Ms. Amrita Pradhan	Dr. Ananda K. Sarkar
67.	Ms. Akanksha Bhardwaj	Dr. Gopaljee Jha
68.	Ms. Deevita Srivastava	Dr. Senjuti Sinharoy
69.	Ms. Anshika Pandey	Dr. Senjuti Sinharoy
70.	Ms. Loitongbam Lorinda Devi	Dr. Amar Pal Singh
71.	Ms. Deepika	Dr. Amar Pal Singh
72.	Ms. Komal Vitthalrao Mali	Dr. Amarjeet Singh
73.	Ms. Mohini Jaiswal	Dr. Amarjeet Singh
74.	Mr. A. T. Vivek	Dr. Shailesh Kumar
75.	Ms. Samiksha Saxena	Dr. Shailesh Kumar
76.	Ms. Rumi	Dr. Ashutosh Pandey
77.	Ms. Sarvesh Jonwal	Dr. Alok Krishna Sinha / Dr. Jitender Giri
		Dr. Alok Krishna Sinha

78.	Mr. Asish Kumar Padhy	Dr. Sabhyata Bhatia
79.	Ms. Athira M. Nair	Dr. Praveen Verma
80.	Ms. Jyoti Maurya	Dr. Manoj Prasad
81.	Ms. Kajol BM Singh	Dr. Jitendra K. Thakur
82.	Ms. Prabha	Dr. Gitanjali Yadav
83.	Mr. Halidev Krishna Botta	Dr. Ashverya Laxmi
84.	Mr. Rakesh Kumar Achary	Dr. Manoj Majee
85.	Ms. Avni Mann	Dr. Naveen Chandra Bisht
86.	Mr. Manbir	Dr. Jagadis Gupta Kapuganti
87.	Ms. Rekha	Dr. Jagadis Gupta Kapuganti
88.	Ms. Nidhi Gandhi	Dr. Ananda K. Sarkar
89.	Mr. Debashis Sahoo	Dr. Gopaljee Jha
90.	Ms. Anjali	Dr. Senthil-Kumar Muthappa
91.	Ms. Apoorva Gupta	Dr. Saloni Mathur
92.	Ms. Kanika Maurya	Dr. Jitender Giri
93.	Ms. Antima Yadav	Dr. Pinky Agarwal
94.	Mr. Jitendra Kumar Mohanty	Dr. Swarup K. Parida
95.	Ms. Shruti Mishra	Dr. Jyothilakshmi Vadassery
96.	Ms. Shreya Gupta	Dr. Amar Pal Singh
97.	Ms. Shobha	Dr. Subhra Chakraborty
98.	Ms. Kajal	Dr. Subhra Chakraborty
99.	Ms. Shalini Yadav	Dr. Debasis Chattopadhyay
100.	Ms. Subasty P.	Dr. Debasis Chattopadhyay
101.	Mr. Shubham Bhardwaj	Dr. Sabhyata Bhatia
102.	Ms. Susmita Sett	Dr. Manoj Prasad
103.	Ms. Manisha	Dr. Jitendra K. Thakur
104.	Ms. Kamlesh Kumari	Dr. Gitanjali Yadav
105.	Ms. Shikha Gautam	Dr. Manoj Majee
106.	Ms. Nidhi Yadav	Dr. Jagadish Gupta Kapuganti
107.	Mr. Aswin Reddy Chilakala	Dr. Senthil-Kumar Muthappa
108.	Mr. Rishabh Mirchandani	Dr. Senthil-Kumar Muthappa
109.	Ms. Monika Shrivastava	Dr. Saloni Mathur
110.	Ms. Aswathi P V	Dr. Pinky Agarwal
111.	Ms. Misha Kumari	Dr. Jyothilakshmi Vadassery
112.	Ms. Prakshi Aneja	Dr. Aashish Ranjan
113.	Ms. Priya Upadhyay	Dr. Senjuti Sinharoy
114.	Ms. Kamali S	Dr. Amarjeet Singh
115.	Ms. Kamankshi Sonkar	Dr. Amarjeet Singh
116.	Mr. Samar Singh	Dr. Ashutosh Pandey

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 (2021-22) under report:

Sl. No.	Name of the Student	Thesis Title	Name of the supervisor / co-supervisor
1.	Mr. Ankit Verma	Functional analysis of genes controlling seed size and weight in rice	Dr. Pinky Agarwal / Prof. Akhilesh K. Tyagi
2.	Mr. Jyoti Bhadouria	Investigating the Role of Purple Acid Phosphatases in Phosphorus utilization in Plants	Dr. Jitender Giri
3.	Mr. Niraj Kumar Vishwakarma	Role of activities and localization of CIPK6 and its interacting proteins in the susceptibility of biotic stress in Arabidopsis	Dr. Debasis Chattopadhyay
4.	Mr. Shreenivas Kumar Singh	Molecular intricacies of fungal effectors and their plant host targets	Dr. Praveen Verma
5.	Mr. Lande Nilesh Vikram	Characterization of dehydration responsive phosphoprotein <i>CaPDZ</i> from chickpea (<i>Cicer arietinum</i> L.)	Dr. Niranjana Chakraborty
6.	Ms. Manvi Sharma	To study the interaction between glucose and jasmonic acid signalling pathways in <i>Arabidopsis thaliana</i>	Dr. Ashvarya Laxmi
7.	Ms. Mahima	Role of epigenetic modifier(s) in the development of <i>Arabidopsis thaliana</i>	Dr. Ananda K. Sarkar
8.	Ms. Stanzin Noryang	Investigation of Crosstalk between Auxin Signaling and MAP Kinase Cascade during Plant Development	Dr. Alok Krishna Sinha
9.	Mr. Vishnu Mishra	Role of selected microRNA(s) in development of <i>Arabidopsis thaliana</i>	Dr. Ananda K. Sarkar
10.	Ms. Juhi Bhattacharya	Identification and Functional Characterization of Transcription Factor(s) Involved in Temperature Signalling in Plants	Dr. Aashish Ranjan
11.	Mr. Lokesh Verma	An investigation on Roles of Phosphate Starvation Response (PSR) Gene Potentially Associated with Membrane Lipid Remodeling in Rice	Dr. Jitender Giri

12.	Mr. Pradeep Kumar Pathak	The Role of Hypoxia Induced Nitric Oxide on Protection of Plants Against Pathogen Attack	Dr. Jagadis Gupta Kapuganti
13.	Mr. Ashish Prasad	Role of non-coding RNAs for Tomato leaf curl New Delhi virus (ToLCNDV) tolerance in Tomato (<i>Solanum lycopersicum</i> L.)	Dr. Manoj Prasad
14.	Ms. Deepika Mittal	Investigating calcium regulated plant signaling upon jasmonate perception and herbivory in <i>Arabidopsis thaliana</i>	Dr. Jyothilakshmi Vadassery
15.	Mr. Yeshveer Singh	Structural and functional intricacies of virulence and pathogenesis determinant(s) of necrotrophic fungal phytopathogen(s)	Dr. Praveen Verma
16.	Ms. Dhriti Singh	To study the role of glucose signaling in the regulation of dehydration responses in plants	Dr. Ashverya Laxmi
17.	Ms. Aanchal Choudhary	Elucidation of molecular basis of tailored adaptation strategies employed by <i>Arabidopsis thaliana</i> against combined drought and bacterial pathogen stress	Dr. Senthil-Kumar Muthappa
18.	Mr. Nilesh Kumar Sharma	Role of microRNAs in abiotic stress tolerance in Chickpea	Dr. Debasis Chattopadhyay
19.	Mr. Vadivel Murugan I.	Understanding mechanisms of tolerance to combined drought and pathogen infection in chickpea using transcriptomic and gene silencing approaches	Dr. Senthil Kumar Muthappa

Researchers other than Ph.D. students

Research Associates

1	Namisha Sharma	33	Gauri Arora
2	Abira Choudhuri	34	V.Chandra Kaladhar
3	Kamble Nitin Uttam	35	Roshan Kumar Singh
4	Pawan Kumar	36	Anurag Vasant Rao Daware
5	Renu Kumari	37	Ashish Prasad
6	Vinod Kumar Jangid	38	Vimal Kumar Pandey
7	Sandeep Yadav	39	Abinaya Manivannan
8	Manu Kandpal	40	Rengasamy Bala Krishnan
9	Kristi Kabyashree	41	Saqui Mahmood
10	Atul Kumar Jaiswal	42	Prachi Pandey
11	Niraj Kumar Vishwakarma	43	Rishi Srivastava
12	Jyoti Bhadoria	44	Niraj Singh
13	Sonam Chaudhary	45	Sudhakar Srivastava
14	Ritesh Kumar Yadav	46	Deepa Teotia
15	Mahesh Patil	47	Sameer Dixit
16	Shubhendu Shekhar	48	Lokesh Verma
17	Jitender Singh	49	Ravindra Kumar Chandan
18	Ashutosh Kumar	50	Chitra Bhatia
19	D. Balasubramaniam	51	Mrinalini Manna
20	Piyush Priya	52	Palakurthi Ramesh
21	Durga Madhab Swain	53	Poonam Kumari
22	Tirthankar Bandyopadhyay	54	Janesh Kumar Gautam
23	Nidhi Singh	55	Sombir Rao
24	Alim Juned	56	Deepika Sharma
25	Anish Kundu	57	Kumud Saini
26	Megha Gupta	58	Ravi Ranjan Saxena
27	Shivi Tyagi	59	Nandita Pasari
28	Ashish Kumar Singh	60	Raghvendra Kumar Mishra
29	Lekha T. Pazhamala	61	Heena Ambreen

30 Neetu Verma
31 Pravin Kumar
32 Balaji M.

62 J. Theboral

Project Fellows

1 Biswaranjan Rout
2 Nikhat Parveen
3 Sunil Kumar Yadav
4 Rohan Bhardwaj
5 Dharmendra Nath Bhatt B
6 Nemalikanti Uma Venkata Sai Malini
7 Suprava Priyadarsini Nayak
8 Mohan Sharma
9 Gaurav Kumar Yadav
10 Anjali Rawal
11 Yamini Agarwal
12 Bhavya Shukla
13 Manvi Sharma
14 Pragya Chitkara
15 Rubiya Parveen
16 Vipin Kumar
17 Simranjit Kaur
18 Ishita Mohan
19 Gagan Gupta
20 Lalita Pal
21 Megha Choudhary
22 Laxmi
23 Ashish Chauhan
24 Benedict Analin A
25 Philip Francis
26 Oceania Chirom
27 Deepali Tiwari
28 Ganpat Sharma
29 Gourav Singh

30 Manish Tiwari
31 Reena Rathor
32 Kirti Singh
33 Achal Prasad
34 Divya Goyal
35 Pritha Kundu
36 Vishnu S. Babu
37 Durgadevi A.
38 Nidhi Varshney
39 Deepanshi Rathore
40 Nilesh Kumar Sharma
41 Akansha Singh
42 Vaishali Gautam
43 Chetan Rawat
44 Rajul Tayal
45 Manish Kumar Sharma
46 Aparajita Kumari
47 Nikhil
48 Anupriya Singh
49 Srija Chakraborty
50 Ritesh Kumar Raipuria
51 Ramgopal Prajapati
52 Shreya Negi
53 Shaswati Sardar
54 Priyanka Kumari
55 Poonam Vanaspati
56 Pooja Kanwar Shekhawat
57 Deepak Bajaj

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. Anukriti Khanna	B.Sc. (Life Sciences), Dayal Singh College, Delhi
Ms. Moniha Sri RB	B. Tech (Biotechnology), Tamil Nadu Agriculture University (TNAU), Coimbatore
Ms. Niyati Bisht	Amity University, Noida, Uttar Pradesh
Ms. Prateeksha Muddemmanavar	B. Tech, University of Agricultural Sciences, Bangalore
Mr. Chaitanya Sharma	Delhi Technological University, Delhi
Ms. Shweata N. Hegde	IISER, Pune
Mr. Anubhab	IISER, Bhopal
Ms. Ananya Singha	IISER, Bhopal

Trainees at Post Graduate level

Ms. Mansi Valecha	M.Sc. (Biotechnology), Amity University, Noida
Mr. Shuaib Khassin	M.Sc. (Biotechnology), Central University of Haryana, Mahendargarh
Ms. Shradha Bhardwaj	M.Sc. (Biotechnology), CCS University, Institute of Technological Science
Ms. Madhulika Ramesh	M.Sc. (Biotechnology), Holy Cross College (Autonomous), Tiruchirapalli, Tamil Nadu
Ms. Shreya Vashishtha	M.Sc. (Bioinformatics) Bharati Vidyapeeth Deemed University, Pune
Ms. Anshul Kamboj	M.Sc. (Bioinformatics), Bharati Vidyapeeth Deemed University, Pune
Ms. Dakshika Gupta	M.Sc. (Applied Microbiology), Banasthali Vidyapith, Rajasthan
Ms. Aroon Gracy	M.Tech (Biotechnology), Bharathidasan University, Tiruchirapalli, Tamil Nadu
Ms. Shivangi Singh	M.Sc. (Genomics), Amity Institute of Virology and Immunology, Amity University, Noida

Ms. Annapurna Kumari	M.Sc. (Bioinformatics), Central University of South Bihar, Gaya
Ms. Gayatri Bhingole	M.Sc. (Bioinformatics) Rajiv Gandhi Institute of I.T and Biotechnology, Pune
Mr. D.S. Jaswanth	M.Sc. Reva University, Bengaluru
Ms. Shradha Jain	M.Sc. (Statistics), Hindu College, Delhi University (Academy Summer Research Fellow-SRF)
Ms. Kanika Gupta	M.Sc. (Bioinformatics), Jamia Millia Islamia University, New Delhi
Ms. Shruti Sharma	M.Sc. (Bioinformatics), Jamia Millia Islamia University, New Delhi
Mr. Kartik Chugh	MS, Ambedkar University Delhi, Delhi
Ms. Utkarsha Pande	MS, IISER, Bhopal
Mr. Ankit Anil Lade	MS, IISER, Bhopal
Ms. Ishita Mohan	MS, Ambedkar University Delhi, Delhi
Ms. Panaree Boonyen	MS, University of Cambridge, U.K.
Ms. Jamila Rowland Chandler	MS, University of Cambridge, U.K.
Mr. Mark D Withers	MS, University of Cambridge, U.K.

Trainees at Scientist level

Dr. Thanga Suja Srinivasan	Assistant Professor (INSA Visiting Scientist), Centre for Climate Change Studies, Sathyabama Institute of Science and Technology, Chennai
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Grant-in-Aid Schemes

Sl. No.	Investigator / Co-Investigator	Title of the Scheme	Funded by
1	Prof. Asis Datta	Decoding the N-acetylglucosamine signalling pathway in microbial pathogens for disease control	CSIR Govt. of India
2	Prof. Asis Datta	Biotechnological approaches to improve shelf life, productivity of vegetables- (Tomato)	DBT Govt. of India
3	Dr. Niranjana Chakraborty	Functional analysis of candidate abiotic stress responsive genes "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
4	Dr. Niranjana Chakraborty	Dissection of proteome dynamics of high temperature stress in wheat (<i>Triticum aestivum</i> L.) and identification of potential candidates for genetics engineering	CSIR Govt. of India
5	Dr. Subhra Chakraborty	Understanding seed nutrient dynamics by system biology approach "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
6	Dr. Subhra Chakraborty	Advanced Inter-Institutional Proteomics Facility- Advanced Research Platform for Crop Sciences	DBT Govt. of India
7	Dr. Subhra Chakraborty	Understanding PTI and ETI in plant-hemibiotrophic fungal interaction through secretome and interaction proteomics studies	DBT Govt. of India
8	Dr. Subhra Chakraborty	Understanding mechanistic detail of growth promotion and stress tolerance in legume and cereal crops by fungal endophyte through secretome and metabolomics study	DBT Govt. of India
9	Dr. Subhra Chakraborty	Development of integrated multi-omics analysis platform, and its application to elucidate the differential process of silk colouration in the Muga silkworm <i>Antheria assamensis</i> Heifer	DBT Govt. of India
10	Dr. Subhra Chakraborty	Deciphering role(s) of post-translational modifications and chromatin regulation of immunity in rice	SERB Govt. of India
11	Dr. Subhra Chakraborty	J. C. Bose Fellowship	SERB Govt. of India
12	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
13	Dr. Subhra Chakraborty	A National Mission Mode Program on Nutritional Improvement of Digestible Protein Content and Quality in Rice	DBT Govt. of India
14	Dr. Debasis Chattopadhyay	J. C. Bose Fellowship: Role of cytokinin oxidase in root development and mineral accumulation in chickpea	SERB Govt. of India
15	Dr. Alok Krishna Sinha	Editing MPK3, a mitogen activated protein kinase gene using CRISPER/Cas9 tool in rice to study the role of gene in cell cycle and grain yield	DBT Govt. of India
16	Dr. Alok Krishna Sinha	J.C. Bose fellowship – Investigation of molecular mechanism of submergence tolerance rice	SERB Govt. of India
17	Dr. Alok Krishna Sinha	Gene Functional Analysis Platform for Crops-Advanced Research Platform for Crop Sciences	DBT Govt. of India
18	Dr. Sabhyata Bhatia	Dissecting molecular mechanisms involved in chickpea seed development "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India

19	Dr. Sabhyata Bhatia	Exploring transcriptome dynamics of chickpea development for candidate gene discovery and defining regulatory elements/modules "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
20	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
21	Dr. Sabhyata Bhatia	Targeted exome and transcriptome sequencing of lentil for discovery of genetic polymorphisms and construction of gene expression atlas	SERB Govt. of India
22	Dr. Praveen Verma	Understanding genetic and molecular basis of Ascochyta blight resistance in chickpea "Challenge Programme on Chickpea Functional Genomics"	DBT Govt. of India
23	Dr. Manoj Prasad	Multi-omics study on the factors affecting the shelf-life of model nutriceal, foxtail millet (<i>Setaria italica</i> L.)	SERB Govt. of India
24	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
25	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
26	Dr. Manoj Prasad	Genetic engineering of ubiquitin-proteasome pathway gene (SIRPT4a) for providing tolerance against ToLCNDV in tomato	DBT Govt. of India
27	Dr. Jitendra K. Thakur	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
28	Dr. Gitanjali Yadav	Characterization of 3-Hydroxy-3-methylglutaryl co-enzyme A reductase (HMGR) gene family in Cicer arietinum, and its role in abiotic stress	CSIR Govt. of India
29	Dr. Gitanjali Yadav	Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies" (TIGR2ESS)	University of Cambridge Govt. of UK
30	Dr. Ashverya Laxmi	National Women Bio-Scientist Award- To study the interaction between glucose and salicylic acid signal transduction pathway in model plant <i>Arabidopsis thaliana</i>	DBT Govt. of India
31	Dr. Ashverya Laxmi	J.C. Bose fellowship	SERB Govt. of India
32	Dr. Ashverya Laxmi	Cytokinin regulation of shade avoidance response in plants	SERB Govt. of India
33	Dr. Manoj Majee	National Bioscience Award: Investigation of chemical war between isoASp mediated protein damage and repair in seed towards understanding seed deterioration during aging and seed storage	DBT Govt. of India
34	Dr. Naveen C. Bisht	Biofortification of branched chain amino acid-leucine in Brassica crops using CRISPR-Cas9 mediated genome editing	DBT Govt. of India
35	Dr. Naveen C. Bisht	To perform event selection under small scale open field growth condition and substantial equivalence test of the low glucosinolate brassica juncea transgenic lines	BIRAC Govt. of India
36	Dr. Naveen C. Bisht	Nutritional Improvement of Indian Oilseed Mustard Using CRISPR-Cas9 Mediated Genome Editing	DBT Govt. of India
37	Dr. Naveen C. Bisht	Genomics-led improvement of biotic and abiotic stress tolerance in mustard rape for economic and environmental sustainability	DBT Govt. of India

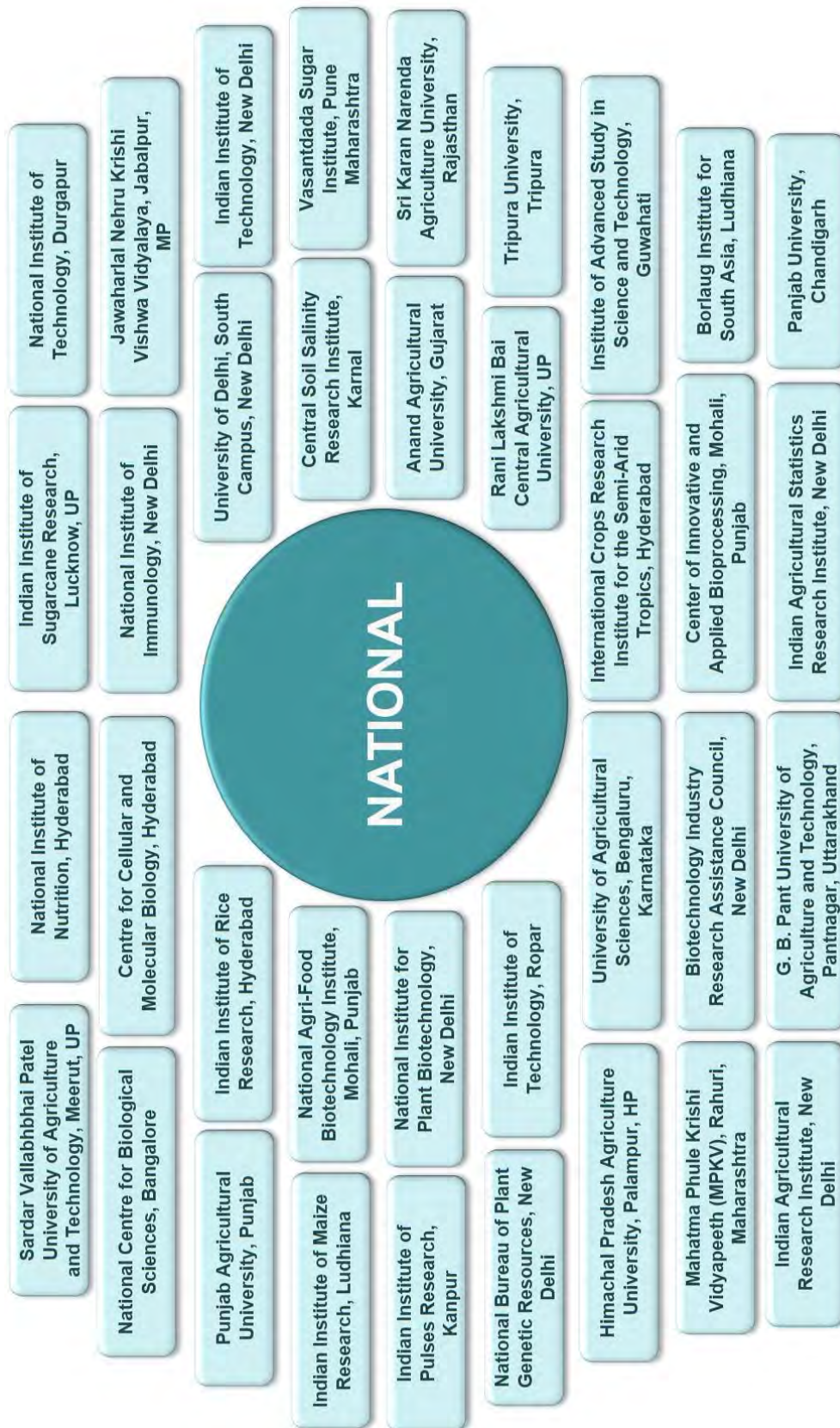
38	Dr. Naveen C. Bisht	Investigating the molecular-genetic basis of multifunctional glucosinolate transporters (GTR1/GTR2) in Brassica crops- S. Ramachandran National Bioscience Award	DBT Govt. of India
39	Dr. Jagadis Gupta Kapuganti	Nitric oxide signaling in response to Botrytis cinerea infection tomato fruits	DBT Govt. of India
40	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
41	Dr. Jagadis Gupta Kapuganti	Development of an engineered box for increasing shelf-life of fruits and vegetables using hypoxia induced nitric oxide	BIRAC Govt. of India
42	Dr. Jagadis Gupta Kapuganti	The role of phytooglobin-nitric oxide cycle in oxygen sensing and plasticity of mitochondrial response to low oxygen stress in plants	SERB Govt. of India
43	Dr. Jagadis Gupta Kapuganti	Novel and cost-effective technology to prevent post-harvest losses of fruits- Sree Padmavathi Venkateswara Foundation (Sree PVF)	Sree Ramkrishna Paramahansa Research Grants
44	Dr. Jagadis Gupta Kapuganti	Platform for Measurement of Free Radicals (PMFR)	DBT Govt. of India
45	Dr. Saloni Mathur	Comparative analysis of the epigenetic landscape to heat stress adaptation in two contrasting tomato cultivars	DST Govt. of India
46	Dr. Gopaljee Jha	Enhancing sheath blight disease tolerance in rice under SwarnaJayanti Fellowship	DST Govt. of India
47	Dr. Gopaljee Jha	Imparting sheath blight disease tolerance in rice	DBT Govt. of India
48	Dr. Senthil Kumar Muthappa	Identification of host factors responsible for infection and development of nano-particle based dsRNA delivery system for imparting resistance to begomoviruses	ICAR Govt. of India
49	Dr. Senthil Kumar Muthappa	Development of integrated multi-omics database for understanding combined stress tolerance in plants	SERB Govt. of India
50	Dr. Jitender Giri	Beyond transgenic plants: use of precise genome editing for improving plant growth under low phosphorus input	INDO-SWISS joint research project
51	Dr. Jitender Giri	Unlinking phosphate deficiency responses from their adverse effects on growth in rice	DST Govt. of India
52	Dr. Jitender Giri	Targeting Pup 1 independent mechanisms for improving low soil phosphorus tolerance and use- efficiency in rice	DBT Govt. of India
53	Dr. Swarup K. Parida	Integrated genomic strategy for accelerating domestication of rice bean (Vigna umbellata)- Genetic Enhancement of Minor Pulse	DBT Govt. of India
54	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
55	Dr. Pinky Agarwal	Transcriptional repressors as friends or foes: Utilization to increase seed size in rice	SERB Govt. of India
56	Dr. Jyothilakshmi Vadassery	EMBO Global Investigator Network Grant	Govt. of Germany
57	Dr. Jyothilakshmi Vadassery	The chemical ecology of high L-DOPA containing plants and their interaction with herbivores	DBT Govt. of India
58	Dr. Jyothilakshmi Vadassery	Understanding the role of calcium ion channels in plant defense against Spodoptera litura herbivore	DBT Govt. of India

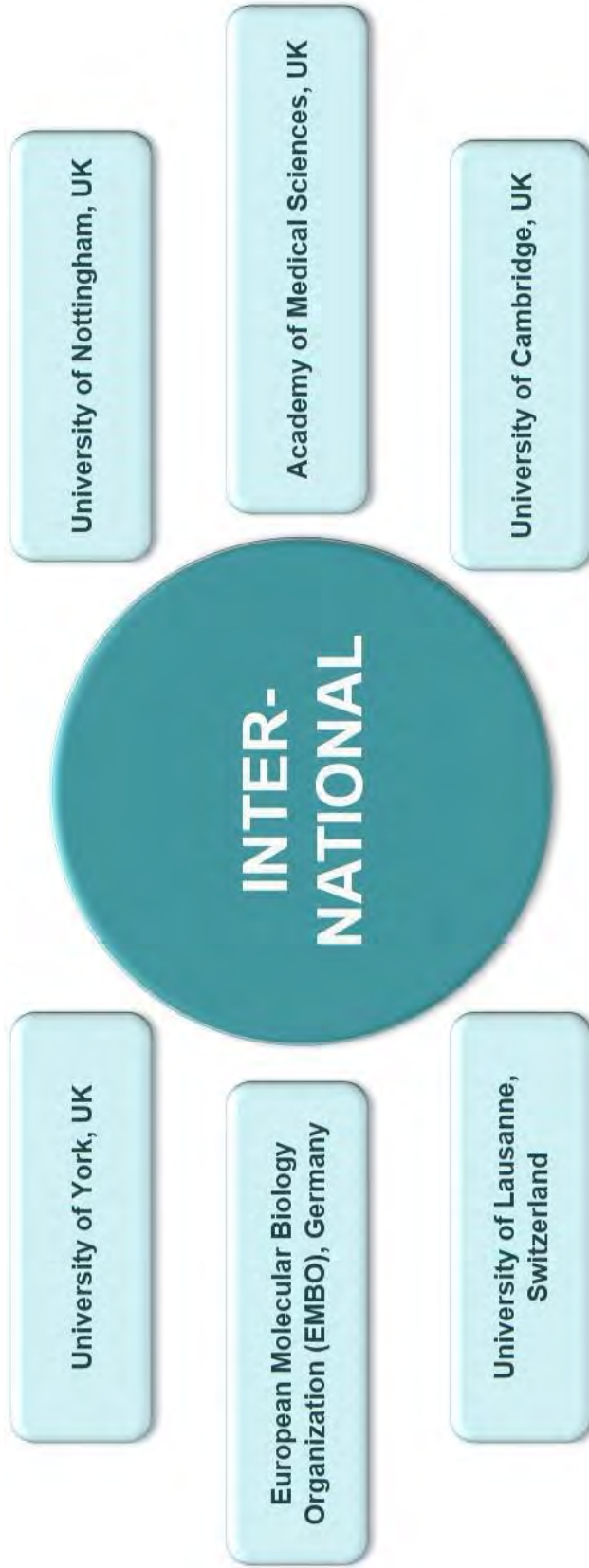
59	Dr. Jyothilakshmi Vadassery	Plant analytical Platform for Phytohormones and low abundant Molecules- Advanced Research Platform for Crop Sciences	DBT Govt. of India
60	Dr. Jyothilakshmi Vadassery	Development of sustainable management tools for the invasive pest, Fall Armyworm <i>Spodoptera frugiperda</i> (J. E. Smith) in maize	ICAR Govt. of India
61	Dr. Aashish Ranjan	Understanding genetic and molecular intricacies of high ambient temperature-regulated leaf size	SERB Govt. of India
62	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
63	Dr. Senjuti Sinharoy	Determination the role of (Cysteine- Rich Secretory Proteins, Antigen 5, and Pathogenesis-Related 1 Proteins (CAP) during <i>Arachis- Bradyrhizobium</i> symbiosis	DBT Govt. of India
64	Dr. Senjuti Sinharoy	Understanding the role of nodule specific PIN-LIKES (PILS) protein in peanut root nodule development	DST Govt. of India
65	Dr. Senjuti Sinharoy	Generation of a retrotransposon-based mutant population of chickpea for functional genomics studies	DBT Govt. of India
66	Dr. Amar Pal Singh	Understanding hormonal regulation of root growth plasticity to increase plant productivity under low nitrogen availability in tomato (<i>Solanum lycopersicum</i>)	DBT Govt. of India
67	Dr. Amar Pal Singh	Physiological and molecular characterization of root developmental plasticity under low nitrogen availability	DST Govt. of India
68	Dr. Amarjeet Singh	Deciphering Jasmonic Acid Biosynthesis pathway and its Role in potassium (K ⁺) Deficiency Tolerance in Chickpea (<i>Cicer arietinum</i>)	DST Govt. of India
69	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
70	Dr. Shailesh Kumar	Genome-wide identification and characterization of fusion event in different plant species	SERB Govt. of India
71	Dr. Shailesh Kumar	Genome-wide identification and characterization of transfer RNA derived fragments (tRFs) in chickpea	SERB Govt. of India
72	Dr. Ashutosh Pandey	Elucidation of metabolic channeling at the entry point into the phenylpropanoid pathway in <i>Musa</i> species: Functional characterization of phenyl alanine ammonia lyase gene family	INSA Govt. of India
73	Dr. Ashutosh Pandey	Molecular characterization of flavonol biosynthesis in banana: Towards development of flavonol enriched banana	SERB Govt. of India
74	Dr. Ashutosh Pandey	National Certification System for Tissue Culture Raised Plants (NCS-TCP)	DBT Govt. of India
75	Dr. Ashutosh Pandey	Development of D-allulose based nano-formulations for enhanced stress tolerance and increased crop productivity	DBT Govt. of India
76	Dr. Ashutosh Pandey	Genome editing mediated nutritional improvement of potato (<i>Solanum tuberosum</i> L.)	DBT Govt. of India
77	Dr. Hasthi Ram	INSPIRE Faculty Award	DST Govt. of India
78	Dr. Hasthi Ram	Construction and functional testing of genome-wide CRISPR-Cas9 library for genome-editing of seed specific genes in <i>Indica</i> Rice	SERB Govt. of India
79	Dr. Hasthi Ram	Increasing Iron Level in Rice Grains through Altering the Expression of Vacuolar Iron Transporter (VIT)-Like genes	DBT Govt. of India

80	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
81	Dr. Vineet Gaur	Ramalingaswami Fellowship	DBT Govt. of India
82	Dr. Heena Ambreen (NPDF)	Unraveling the molecular crosstalk during tripartite symbiotic interaction between chickpea, Rhizobium and Fusarium for effective enhancement of nodulation under concurrent biotic stress	DST Govt. of India
83	Dr. Mrinalini Manna (NPDF)	Understanding mitogen-activated protein kinase mediated regulation of PIN1a auxin transporter for manipulating tiller number in rice (<i>Oryza sativa</i>)	DST Govt. of India
84	Dr. Raghvendra Kumar Mishra (Teachers Associateship for Research Excellence Scheme)	Large scale development of ILP markers in pea (<i>Pisum Sativum</i>) and their potential utility in mapping, diversity and transferability analysis	SERB Govt. of India
85	Dr. Nandita Pasari (BioCARE Women Scientist)	Elucidating the role of small RNA based effectors involved in root colonization of a growth promoting endophytic fungus <i>Piriformospora indica</i> in chickpea	DBT Govt. of India
86	Dr. Neetu Verma (BioCARE Women Scientist)	Analysis of Phytochrome Interacting Factor (PIF4) and Histone Variant (H2A.Z)- Mediated Themosensory Regulatory Network in <i>Arabidopsis Thaliana</i>	DBT Govt. of India
87	Dr. Namisha Sharma (DST-Women Scientist)	Integrating omics approaches to understand the molecular mechanism underlying plants' response to Tomato Leaf Curl disease	SERB Govt. of India
88	Dr. Ravi Ranjan Saxena (NPDF)	mQTL-seq approach for identification of responsible genomic regions for spot blotch resistance in bread wheat and development of markers for molecular breeding	SERB Govt. of India
89	Dr. Alim Junaid (NPDF)	CRISPER/Cas engineering of Med15 for increasing rice grain length	SERB Govt. of India
90	Dr. Chitra Bhatia (NPDF)	Exploring the role of post-translational modification of jasmonate signaling genes in low phosphate tolerance	SERB Govt. of India
91	Dr. Janesh Kumar Gautam (NPDF)	Understanding the molecular crosstalk between early Spodoptera perception and Jasmonate biosynthesis	SERB Govt. of India
92	Dr. Kumud Saini (NPDF)	Deciphering the role of auxin-brassinosteroid crosstalk in the leaf development cascades under adverse environmental conditions	SERB Govt. of India
93	Dr. Depika Sharma (INSPIRE Fellow)	Understanding role of MAP Kinase signaling cascade in regulation of peptides encoded by pri-miRNAs in rice	DST Govt. of India
94	Dr. Sameer Dixit M K Bhan Fellow	Screening and identification of <i>Spodoptera litura</i> effectors proteins using RNA interference and its functional validation in plants	DBT Govt. of India
95	Dr. Deepa Teotia M K Bhan Fellow	Understanding the molecular mechanism of higher nitrogen fixation efficiency in <i>Cicer arietinum</i> and <i>Medicago truncatula</i> root nifules: A multi-omics approach	DBT Govt. of India



Collaborating/ Interacting Institutions







Committees of the Institute

Society

Dr. Jitendra Singh

Hon'ble Union Minister of State (IC) for
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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

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Secretary
Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

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Director General, Council of Scientific and
Industrial Research and Secretary,
Department of Scientific & Industrial
Research
Government of India, New Delhi

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Secretary, Department of Agricultural
Research and Education
and Director General, Indian Council of
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New Delhi

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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

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Department of Biotechnology
Ministry of Science & Technology
Government of India, New Delhi

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International Centre for Genetic Engineering
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Chairman and Managing Director
Hindustan Insecticides Ltd., New Delhi

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Department of Plant Molecular Biology
South Campus, University of Delhi
New Delhi

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Former Director
CSIR-Indian Institute of Integrative Medicine,
Jammu

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Director
National Institute of Plant Genome Research
New Delhi
(Member-Secretary)

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Department of Biotechnology
Ministry of Science & Technology
Government of India
New Delhi
(Chairperson)

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
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Indian National Science Academy
New Delhi

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Institute of Forest Genetics and Tree
Breeding
Coimbatore (TN)

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CSIR-Central Institute of Medicinal and
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National Institute of Plant Genome
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New Delhi

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Director, NIPGR
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(Member-Secretary)

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Financial Adviser
Department of Biotechnology,
Ministry of Science and Technology
Government of India, New Delhi
(Chairperson)

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and Biotechnology
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National Fertilizers Ltd.
New Delhi

Shri M. Satish Kumar Reddy

Former Commissioner
Central Goods and Services Tax and
Customs
Government of India

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Director, NIPGR
New Delhi

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Controller of Administration
NIPGR, New Delhi

Shri Rakesh Mohan

Finance Officer
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New Delhi
(Member-Secretary)

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Professor & Chair
Division of Biological Sciences
Indian Institute of Science, Bengaluru

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Lucknow (UP)

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Institute of Forest Genetics and Tree
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Coimbatore (TN)

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CSIR-Central Institute of Medicinal and
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Professor & Head
Genetics Division
ICAR-Indian Agricultural Research Institute
New Delhi

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

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. Subhra Chakraborty

Director, NIPGR
New Delhi (Member-Secretary)

Academic Committee

Dr. Subhra Chakraborty

Director, NIPGR
New Delhi (Chairperson)

Prof. Pawan K. Dhar

Dean
School of Biotechnology
Jawaharlal Nehru University
New Delhi – 110067
(up to February 21, 2022)

Prof. K. Natarajan

School of Life Sciences
Jawaharlal Nehru University
New Delhi – 110067
(February 22, 2022 onwards)

Prof. Vibha Tandon

Special Centre for Molecular Medicine
Jawaharlal Nehru University
New Delhi – 110067
(up to February 21, 2022)

Prof. Rakesh K. Tyagi

Special Centre for Molecular Medicine
Jawaharlal Nehru University
New Delhi – 110067
(February 22, 2022 onwards)

Prof. Inderjit Singh

Departmental of Environmental Studies
University of Delhi
Delhi – 110007
(up to February 21, 2022)

Dr. Debashish Mohanty

Scientist VII
National Institute of Immunology
New Delhi – 1100 67
(February 22, 2022 onwards)

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-II
Jawaharlal Nehru University
New Delhi
(Special Invitee)
(up to February 21, 2022)

Prof. Ajay Kumar Dubey

Rector
Jawaharlal Nehru University
New Delhi – 110067
(February 22, 2022 onwards)

Building Committee

Dr. Dinakar M. Salunke

Executive Director
ICGEB, New Delhi
(Chairman)

Prof. Rakesh Bhatnagar

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)

Shri Sunil Kumar Sharma

Consultant Engineer
NIPGR, New Delhi

Shri Sandeep Datta

Controller of Administration
NIPGR, New Delhi
(Member-Secretary)

Institutional Biosafety Committee

Dr. Subhra Chakraborty

Director, NIPGR
New Delhi (Chairman)

Dr. M. K. Reddy

International Centre for Genetic Engineering and
Biotechnology (ICGEB), New Delhi

Prof. Alok Bhattacharya

Ashoka University
Sonapat, Haryana

Prof. M. V. Rajam

University of Delhi South Campus (UDSC)
New Delhi

Dr. Subrata Sinha

All India Institute of Medical Science (AIIMS)
New Delhi

Dr. Senthil K. Muthappa

Scientist
NIPGR, New Delhi

Dr. Senjuti Sinharoy

Scientist
NIPGR, New Delhi

Dr. Naveen Chandra Bisht

Scientist
NIPGR, New Delhi
(Member-Secretary)

Staff of the Institute

Scientific Staff

1. Dr. Subhra Chakraborty, Director
2. Dr. Niranjana Chakraborty, Professor of Eminence
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. Praveen Verma, Scientist VI*
9. Dr. Jitendra Kumar Thakur, Scientist VI*
10. Dr. Manoj Majee, Scientist VI
11. Dr. Gitanjali Yadav, Scientist V
12. Dr. Ashverya Laxmi, Scientist V
13. Dr. Naveen Chandra Bisht, Scientist V
14. Dr. Jagadish Gupta Kapuganti, Scientist V
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17. Dr. Senthil K. Muthappa, Scientist V
18. Dr. Jitender Giri, Scientist V
19. Dr. Saloni Mathur, Scientist V
20. Dr. Swarup K. Parida, Scientist V
21. Dr. Pinky Agarwal, Scientist V
22. Dr. Jyothilakshmi Vadassery, Scientist V
23. Dr. Aashish Ranjan, Scientist V
24. Dr. Senjuti Sinharoy, Scientist IV
25. Dr. Amarpal Singh, Scientist IV
26. Dr. Amarjeet Singh, Scientist III
27. Dr. Shailesh Kumar, Scientist III
28. Dr. Ashutosh Pandey, Scientist III
29. Dr. Prabhakaran Soundarajan, Scientist III
30. Dr. Hasthi Ram, Scientist II
31. Dr. Vineet Gaur, Ramalingaswami Fellow

*on lien

Technical Staff

1. Ms Umamaheswari Rajamani, Senior Technical Officer
2. Shri Prem Singh Negi, Senior Technical Officer
Shri Sunil Kumar, 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. Dr. Ajima Begum, Senior Technical Officer
10. Shri Jagdeep Singh, Senior Technical Officer
11. Shri Shankar Acharya, Senior Technical Officer
12. Shri Neeraj Nim, Senior Programmer
13. Shri C. Ravi Shankar, Technical Officer
14. Shri Anand Singh Rana, Technical Officer
15. Shri Ashok Kumar, Technical Officer
16. Shri Rajendra, Technical Officer
17. Shri Naveen Kumar Sudda, Technical Officer
18. Shri Dinesh Mehta, Technical Officer
19. Shri Ratneshwar Thakur, Technical Officer
20. Shri Subhasish Mondal, Technical Officer
21. Shri Shailendra Kharwal, Technical Officer
22. Shri Anand Dangi, Technical Officer
23. Shri Mohit, Technical Assistant
24. Shri Brihaspati Narayan Shukla, Technical Assistant
25. Shri Arabinda Das, Multi-Tasking Staff
26. Shri P. K. Mishra, Multi-Tasking Staff
27. Ms Neeta Maurya, Multi-Tasking Staff
28. Shri Tul Bahadur Thapa, Multi-Tasking Staff
29. Shri Mahender Singh, Multi-Tasking Staff

*Retired on 30/04/2021

Administrative & 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 Kamal Kumar, PS to Director
7. Ms Vinita Sharma, Section Officer
8. Ms Rajani Aswal, Section Officer
9. Ms Sonali, Assistant Section Officer
10. Shri Tapas Shit, Assistant Section Officer
11. Shri Mitesh Raj Bhardwaj, Assistant Section Officer
12. Shri Achint Gupta, Assistant Section Officer
13. Shri Devender Singh Bhandari, Assistant
14. Shri Om Prakash Sah, Junior Hindi Translator
15. Shri Ramesh Singh, Junior Assistant
16. Shri Hari Singh Negi, Junior Assistant
17. Shri Vipin Goyal, Hindi Typist
18. Shri Kuldeep Singh, Driver
19. Shri Bhargunath Manjhi, Multi-Tasking Staff
20. Shri Manmohan Singh Rawat, Multi-Tasking Staff

**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 2021-2022 have allocated grant of ₹5925.00 lakhs including ₹1825.00 lakhs for infrastructure facilities in respect of NIPGR. The source and application of funds during the financial year 2021-2022 in respect of Institute is as under:

Sources of Funds

The Govt. of India, Department of Biotechnology, released grants of ₹5925.00 lakhs during 2021-2022 as detailed below:

Grants for Creation of Capital Assets	₹ 1825.00 lakhs
Grants-in-Aid Salaries	₹ 1100.00 lakhs
Grants-in-Aid General	₹ 3000.00 lakhs

Besides, the Institute has earned, an interest of ₹88,64,308/- on bank deposits of the Institute and miscellaneous receipts including User Charges & Overhead Charges of ₹1,24,06,808/- during the year, apart from the opening balance of ₹3,79,22,808/- carried forward from previous year.

Application of Funds

(As per Utilization Certificate furnished to the Department of Biotechnology for the year 2021-2022)

The total expenditure on research activities and infrastructure development during the year 2021-2022 was ₹58,69,97,681/- including ₹15,69,61,605/- on infrastructure development. An amount of ₹3,71,62,034/- under TSA lapsed to Government Account.

OVER ALL EXPENDITURE AT A GLANCE	
<u>A-Grants for creation of Capital Assets</u>	<u>Amount in ₹</u>
1. Land & Building	12,42,99,087
2. Equipment	2,73,00,121
3. Furniture & Fixtures	3,04,333
4. Vehicle	16,94,312
5. Books/Scientific Journals	33,63,752
Total =	<u>15,69,61,605</u>
<u>B-Grants-in-Salaries</u>	
1. Manpower	12,81,14,121
Total =	<u>12,81,14,121</u>
<u>C-Grant-in-Aid General</u>	
1. Consumables	7,54,40,464
2. Contingencies (Infrastructure Maintenance)	18,98,00,944
3. Training/Networking/Fellowship	2,19,90,678
4. Campus/Field Development	1,43,82,541
5. Travel	3,07,328
Total =	<u>30,19,21,955</u>
D- Refund of Interest for the year 2021-2022 to DBT through Bharatkosh	<u>1,36,44,666/-</u>
Closing balance at the end of the year 2021-2022	<u>1,86,69,901</u>

INDEPENDENT AUDITOR'S REPORT

To
The Director,
NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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-110067, which comprise the Balance sheet as at March 31, 2022, Income & Expenditure Account and the Receipts & Payments Account for the year ended on that date, and a summary of significant accounting policies and other explanatory information.

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

Basis for Opinion

We conducted our audit in accordance with Standards on Auditing (SAs) issued by Institute of Chartered Accountants of India. Our responsibilities under those Standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the entity in accordance with the ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that gives a true and fair view of financial position and financial performance of the Institute in accordance with the Accounting Standards issued by The Institute of Chartered Accountants of India and in accordance with the accounting principles generally accepted in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentations of financial statements that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements 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.

I-E/15, Jhandewalan Extension., New Delhi – 110055, India, E-mail : info@vkdco.com
Phones : (91-11) – 23528511, 23638325, 23536857, 23550475, 43539669



A further description of our responsibilities for the audit of the financial statements is included in Annexure – A of this Auditor's Report.

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 purpose of our audit.
2. In our opinion proper books of account as required by law have been kept by the Institute so far as it appears from our examination of those books.
3. The Balance Sheet, the Income & Expenditure Account dealt with by this Report are in agreement with the books of account.
4. In our opinion the aforesaid financial statements comply with the applicable Accounting Standards issued by the Institute of Chartered Accountants of India.

For V. K. DHINGRA & CO.
CHARTERED ACCOUNTANTS
Firm Registration No. : 000250N

(VIPUL GIROTRA)
PARTNER
M. No. : 084312
UDIN: 22084312AQHJEG4114

PLACE: NEW DELHI
DATE: AUGUST 30, 2022



Annexure-‘A’ to the Independent Auditor’s Report**Auditor’s Responsibilities**

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism 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
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

PLACE: NEW DELHI
DATE: AUGUST 30, 2022

For V. K. DHINGRA & CO.,
CHARTERED ACCOUNTANTS
Firm Registration No. 000250N


(VIPUL GIROTRA)
PARTNER
M. No. : 084312
UDIN: 22084312AQHJEG4114



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
BALANCE SHEET AS ON 31st MARCH 2022

LIABILITIES	Schedule	AMOUNT IN ₹	
		Current Year	Previous Year
Corpus/Capital Fund	1	1,24,28,61,303	1,24,91,58,426
Reserves and Surplus	2	(7,34,79,506)	(5,13,95,685)
Earmarked/Endowment Funds	3	9,87,64,655	8,74,25,409
Secured Loans and Borrowings	4	-	-
Unsecured Loans and Borrowings	5	-	-
Deferred Credit Liabilities	6	-	-
Current Liabilities and Provisions	7	28,58,18,058	27,02,14,987
TOTAL		1,55,39,64,510	1,55,54,03,137
ASSETS			
Fixed Assets			
Tangible Assets	8	96,33,41,314	1,08,19,59,409
Intangible Assets	8	1,14,70,994	1,13,70,281
Investments-From Earmarked/Endowment Funds	9	9,76,72,253	8,56,25,840
Investments- Others	10	-	-
Current Assets, Loans, Advances etc.	11	48,14,79,949	37,64,47,607
Miscellaneous Expenditure (to the extent not written off or adjusted)		-	-
TOTAL		1,55,39,64,510	1,55,54,03,137
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 V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DÁTTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
PARTNER

PLACE: NEW DELHI
DATE: August 30, 2022

Membership No.084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
INCOME & EXPENDITURE FOR THE YEAR ENDED 31st MARCH 2022

		AMOUNT IN ₹	
INCOME	Schedule	Current Year	Previous Year
Income from Sales/ Services	12	-	-
Grants / Subsidies (Recurring)	13	40,99,74,516	29,50,00,000
Fees/ Subscriptions	14	-	-
Income from Investments (Income on Investment from Earmarked/ Endowment Fund)	15	34,26,217	71,87,253
Income from Royalty, Publication etc.	16	-	-
Interest Earned	17	1,46,82,940	2,47,10,267
Other Income	18	1,21,43,375	1,00,92,308
Deferred Income- Fixed Assets	18	6,28,80,543	7,42,60,808
Increase / (decrease) in stock of Finished goods and works-in-progress	19	-	-
TOTAL (A)		50,31,07,591	41,12,50,636
EXPENDITURE			
Income from Investments (Income on Investment from Earmarked Fund) Endowment Fund transferred to NIPGR Fund A/c	15	34,26,217	71,87,253
Interest earned transferred to respective Project/ Current Liabilities	17	1,44,27,174	2,43,90,200
Establishment Expenses	20	13,86,75,724	11,79,99,949
Other Administrative Expenses etc.	21	30,57,81,754	26,07,24,580
Prior Period Expenses	21	-	-
Expenditure on Grants, Subsidies etc.	22	-	-
Interest	23	-	-
Depreciation (Net Total at the year-end - corresponding to Schedule-8)		6,28,80,543	7,42,60,808
TOTAL (B)		52,51,91,412	48,45,62,790
Balance being excess of Income over Expenditure (A - B)			-
Balance being excess of Expenditure over Income (B - A)		2,20,83,821	7,33,12,154
Transfer to Special Reserve (Specify each)		-	-
Transfer to / from General Reserve		-	-
BALANCE BEING DEFICIT/ SURPLUS CARRIED TO RESERVES/ SURPLUS		2,20,83,821	7,33,12,154
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 V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
PARTNER

PLACE: NEW DELHI
DATE: August 30, 2022



Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE I	Current Year		Previous Year	
CORPUS /CAPITAL FUND				
Grants in Aid Non recurring				
Balance as at the beginning of the year	50,71,05,202		56,13,66,010	
Add: Contributions received during the year	18,25,00,000		2,00,00,000	
Less: Grants lapsed to Government	3,71,36,550		-	
Less : Reduced during the year	6,28,80,543		7,42,60,808	
		58,95,88,109		50,71,05,202
Fixed Assets Fund				
Balance as at the beginning of the year	74,09,97,264		89,82,16,863	
Add: Contributions received during the year	15,45,04,739		4,13,11,012	
Less: Contribution refunded/lapsed during the year	1,35,63,914		1,37,593	
Add : Value of Project Equipment transferred back	-		-	
Less:Reduced during the year	22,97,20,855		19,83,93,018	
		65,22,17,234		74,09,97,264
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		1,24,28,61,303		1,24,91,58,426


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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ADMINISTRATION


(DR. SUBHIRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER



Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

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		3,98,888	
Addition during the year	-		2,15,000	
Less: Deduction during the year	-		-	
4. General Reserve:		6,13,888		6,13,888
As per last Account	(5,20,09,573)		2,13,02,581	
Addition during the year	-		-	
Less: Deduction during the year	2,20,83,821		7,33,12,154	
Less: Short & Excess	-		-	
		(7,40,93,394)		(5,20,09,573)
TOTAL		(7,34,79,506)		(5,13,95,685)


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER



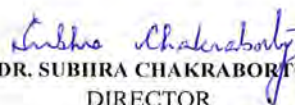
NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE 3	Current Year		Previous Year	
Fund Debt Employees Provident Fund				
a) Opening balance of the fund	8,74,25,409		7,45,92,194	
b) Additions to the fund				
i) Donations/grant	-		-	
ii) Income from Investments/Savings Account	34,26,217		71,87,253	
iii) Regular Subscription/Refund of Advance received	65,91,800		71,60,831	
iv) Receipt towards Management share & Interest (Deficit only)	39,69,404		5,85,131	
Total (a+b)		10,14,12,830		8,95,25,409
c) Utilization/Expenditure towards objectives of fund	-		-	
i. <u>Capital Expenditure</u>				
* Fixed Assets	-		-	
* Others	265			
ii <u>Revenue Expenditure</u>				
Advance payment to Subscribers	-		-	
Part final withdrawal	-		21,00,000	
Final payment to Subscribers	26,47,910		-	
Total (c)		26,48,175		21,00,000
TOTAL (a+b-c) (Annexure-113)		9,87,64,655		8,74,25,409


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBIIRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER



Membership No.084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE 4- SECURED LOANS AND BORROWINGS:	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specify)	-		-	
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 ₹

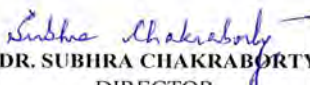
SCHEDULE 5- UNSECURED LOANS AND BORROWINGS	Current Year		Previous Year	
1. Central Government	-		-	
2. State Government (Specify)	-		-	
3. Financial Institutions	-		-	
4. Banks:				
a) Terms Loans	-		-	
b) Other Loans (Specify)	-		-	
5. Other Institutions and Agencies	-		-	
6. Debentures and Bonds	-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


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER



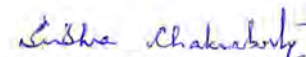
NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE 7-	Current Year		Previous Year	
CURRENT LAIBILITIES AND PROVISIONS				
A. CURRENT LIABILITIES				
1. Acceptances	-	-	-	-
2. Sundry Creditors				
a) For Goods	-	-	-	-
b) Others	-	-	-	-
3. Advances Received				
(i) Security deposits from contractors	1,71,78,715		2,13,02,729	
Add: Variations during the year				
Less: Variations during the year	39,07,082	1,32,71,633	41,24,014	1,71,78,715
(ii) Earnest Money deposit	-		-	
Add: Variations during the year	-		-	
Less: Variations during the year	-		-	
(iii) Hostel Security from Students	3,49,000		3,89,000	
Add: Variations during the year	-		-	
Less: Variations during the year	34,000		40,000	
		3,15,000		3,49,000
4. Projects Grants/Fellowships				
(i) CSIR	10,00,008		71,621	
(ii) DBT	10,89,50,498		9,53,07,183	
(iii) DST/ SERB	1,54,15,350		2,29,29,527	
(iv) NASI	-		-	
(v) INSA/ ICAR/EMBO/INYS	33,57,482		9,06,358	
(vi) Fellowships	33,10,613		34,91,092	
(vii) PSI & AOAPC Conference	-		-	
(viii) Satellite Symposium	-		1,000	
(Annexure-1 to 112)		13,20,33,952		12,27,06,782
5. Interest accrued but not due on :				
(a) Secured Loans / borrowings	-		-	
(b) Unsecured Loans/borrowings	-		-	
6. Statutory Liabilities				
a) GSTDS / TDS	21,78,283		11,06,557	
b) Others(NPS)	-		1,72,836	
		21,78,283		12,79,393
7. Other Current Liabilities:				
Audit fees payable	47,200		47,200	
Outstanding Expenses payable	2,73,72,652		2,18,20,472	
		2,74,19,852		2,18,67,672
8. Miscellaneous Liabilities:	2,41,340	2,41,340	1,35,047	1,35,047
9. Interest refundable to DBT	88,64,308	88,64,308	1,36,44,666	1,36,44,666
TOTAL (A)		18,43,24,367		17,71,61,276
B. PROVISIONS				
1. For Taxation	-		-	
2. Gratuity	4,51,95,114		4,24,16,466	
3. Superannuation/Pension	-		-	
4. Accumulated Leave Encashment	5,62,98,577		5,06,37,245	
5. Others (Specify)	-		-	
		10,14,93,691		9,30,53,711
TOTAL (B)		10,14,93,691		9,30,53,711
TOTAL (A+B)		28,58,18,058		27,02,14,987


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st March 2022

SCHEDULE 8- FIXED ASSETS

ASSETS	RATE	W.D.V. As on 01.04.2021	Additions/Sales		Total As on 31.03.2022 Rs	Depreciation for the year Rs	W.D.V. As on 31.03.22
			Upto 30.09.2021	On or After 01.10.2021			
I. 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%	29,27,76,543	-	-	29,27,76,543	2,92,77,654	26,34,98,889
b) On Leasehold Land			-	-	-	-	-
c) Ownershp flats/premises	10%		-	-	-	-	-
d) Superstructures on Land not belonging to the entity	10%	3,47,684	-	-	3,47,684	34,768	3,12,916
2.(B) Building (Projects)	10%	2,04,35,414	-	-	2,04,35,414	20,43,541	1,83,91,873
3. Plant Machinery & Equipment							
a) Lab Equipments(Core)	40%	4,39,27,852	16,63,929	8,02,920	4,63,94,701	1,83,97,296	2,79,97,405
b) Lab Equipment (Project)	40%	35,88,56,505	20,30,56,409	1,45,60,742	57,64,73,656	22,76,77,314	34,87,96,342
4. Vehicles	15%	13,47,940	-	16,94,312	30,42,252	3,29,264	27,12,988
5. Furniture & Fixtures	10%	2,48,36,005	48,747	2,55,586	2,51,40,338	25,01,255	2,26,39,083
6. Office Equipments	15%	1,57,20,621	5,82,219	1,15,30,442	2,78,33,282	33,10,209	2,45,23,073
7. Computer / Peripherals	40%	76,34,613	5,46,728	1,21,73,883	2,03,55,224	57,07,313	1,46,47,911
8. Books & Scientific Journals	40%	1,49,363	-	-	1,49,363	59,745	89,618
9. E-Journals	25%	1,13,70,281	-	33,63,752	1,47,34,033	32,63,039	1,14,70,994
Total of Current Year		82,06,02,821	20,58,98,032	4,43,81,637	1,07,08,82,490	29,26,01,398	77,82,81,092
Capital work in Progress		7,22,32,129	-	12,42,99,087	19,65,31,216	-	19,65,31,216
CWIP Equipments (Projects)		20,04,94,740	-	-	20,04,94,740	-	-
Grand Total		1,09,33,29,690	20,58,98,032	16,86,80,724	1,26,74,13,706	29,26,01,398	97,48,12,308

Note : CWIP includes advances and deposits for Equipments/Buildings.

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
CONTROLLER OF ADMINISTRATION

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000259N



(VIPUL GIOTRA)
PARTNER
Membership No. 084312

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

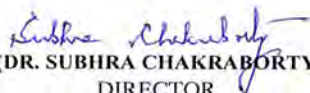
SCHEDULE -9	Current Year		Previous Year	
INVESTMENTS FROM FUND DEBT EMPLOYEES				
PROVIDENT FUND				
1. In Government Securities	-		-	
2. Other approved Securities	-		-	
3. Shares	-		-	
4. Debentures and Bonds	-		-	
5. Subsidiaries and Joint Ventures	-		-	
6. Others-Financial Institutions	9,76,72,253		8,56,25,840	
		9,76,72,253		8,56,25,840
TOTAL		9,76,72,253		8,56,25,840

AMOUNT IN ₹

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


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIRUL GIROTRA)
PARTNER



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE -11	Current Year		Previous Year	
CURRENT ASSETS, LOANS, ADVANCES ETC.				
A. CURRENT ASSETS:				
1. Inventories:				
a) Stores and Spares	-		-	
b) Loose Tools	-		-	
c) Stock-in- trade				
Finished Goods	-		-	
Work-in-progress	-		-	
Consumables	20,27,612		25,65,909	
		20,27,612		25,65,909
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)	33,87,87,340		30,49,58,319	
-On SBI Savings Account	12,00,39,777		4,22,84,079	
-NIPGR CPF Account	58,849		6,00,356	
- NIPGR Account	14,58,633		34,92,410	
- NIPGR HDFC Savings Account	94,47,091		1,61,93,575	
- NIPGR-NCS-TCP Savings Account	30,48,221		-	
		47,28,39,910		36,75,28,739
b) With non- Scheduled Banks:				
-On Current Accounts	-		-	
-On Deposit Accounts	-		-	
-On Savings Accounts	-		-	
		-		-
5. Post Office- Savings Accounts	-		-	
		-		-
TOTAL (A)		47,48,67,522		37,00,94,648


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE- 11	Current Year		Previous Year	
CURRENT ASSETS, LOANS, ADVANCES ETC.				
B. LOANS,ADVANCES AND OTHER ASSETS:				
1. Loans:				
a) Staff		-		-
b) To other Entities engaged in activities/objectives similar to that of the entity		-		-
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	16,991		88,985	
d) Consumable Advance	5,664		14,800	
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)	29,43,000		29,43,000	
iv) VSNL (Internet Lease)	70,000		70,000	
(v) Reliance Comm.Infrast.Ltd.(Telephone)	2,000		2,000	
vi) Queens Road Service Station	50,000		50,000	
vii) Tata Communications Ltd	94,688		94,688	
viii) Indraprastha Gas Ltd (PNG Connection)	4,14,974		4,14,974	
ix) M/s Balmer Lawrie & Company(Rolling Deposit)	5,00,000		5,00,000	
		41,47,317		42,28,447
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	1,85,409		2,10,974	
(includes income due unrealised - ₹Nil)				
		9,28,669		9,54,234
4. Claims Receivable				
a) Refund from Income Tax	14,28,413		10,59,841	
b) Other Receivables	1,08,028	15,36,441	1,10,437	11,70,278
5. Prepaid Expenses	-		-	
TOTAL (B)		66,12,427		63,52,959
TOTAL (A +B)		48,14,79,949		37,64,47,607


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

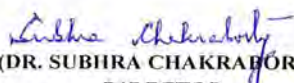
SCHEDULE- 12	Current Year		Previous Year	
INCOME FROM SALES/SERVICES				
1. Income from Sales				
a) Sales of Finished Goods	-		-	
b) Sales of Raw Material	-	-	-	-
2. Income from Services				
a) Labour and Processing Charges	-		-	
b) Professional/Consultancy Services	-		-	
c) Agency Commission and Brokerage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

AMOUNT IN ₹

SCHEDULE -13	Current Year		Previous Year	
GRANTS/SUBSIDIES				
(Irrevocable Grants & Subsidies Received)				
a) Central Government 41,00,00,000				
Less :Lapsed to Government 25,484	40,99,74,516		29,50,00,000	
b) State Government(s)	-		-	
c) Government Agencies	-		-	
d) Institutions/Welfare Bodies	-		-	
e) International Organisation	-		-	
f) Others (Specify)	-		-	
		40,99,74,516		29,50,00,000
TOTAL		40,99,74,516		29,50,00,000


(RAKESH MOHAN)
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(DR. SUBHRA CHAKRABARTY)
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Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

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	34,26,217	34,26,217	71,87,253	71,87,253
2) Dividends				
a) On Shares	-		-	
b) On Mutual Fund Securities	-		-	
3) Rents	-		-	
4) Other (Specify)	-		-	
TOTAL		34,26,217		71,87,253
TRANSFERRED TO EARMARKED/ENDOWMENT FUND		34,26,217		71,87,253


(RAKESH MOHAN)
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(VIPUL GIROTRA)
PARTNER
Membership No. 084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

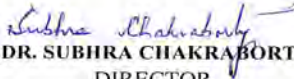
SCHEDULE 16	Current Year		Previous Year	
INCOME FROM ROYALTY, PUBLICATION ETC.				
1) Income form Royalty	-		-	-
2) Income form Publications	-		-	-
3) Service Charges	-		-	-
TOTAL		-		-

AMOUNT IN ₹

SCHEDULE 17	Current Year		Previous Year	
INTEREST EARNED				
1) On Term Deposits:				
a) With Scheduled Banks	1,19,02,110		2,09,52,482	
b) With Non- Scheduled Banks	-		-	
c) With Institutions	-		-	
d) Others-(M/s.RITES Ltd.)	-		-	
		1,19,02,110		2,09,52,482
2) On Savings Accounts:				
a) With Scheduled Banks	25,25,064		35,12,853	
b) With Non- Scheduled Banks	-		-	
c) Post Office Savings Accounts	-		-	
d) Others	-	25,25,064	-	35,12,853
3) On Loans:				
a) Employees/Staff	-		-	
b) Others	-		-	
4) Interest on Security Deposit/ Receivables				
a) BSES	2,06,010		2,28,080	
b) Refund from Income Tax	49,756	2,55,766	16,852	2,44,932
TOTAL		1,46,82,940		2,47,10,267
Interest transferred to respective project	55,62,866	55,62,866	1,07,45,534	1,07,45,534
Interest refundable to DBT trf to Current Liabilities	88,64,308	88,64,308	1,36,44,666	1,36,44,666
Note - Tax Deducted at source to be indicated				


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹				
SCHEDULE 18 - OTHER INCOME		Current Year		Previous Year
1) Profit on Sale/disposal of Assets:				
a) Owned assets	-		5,86,329.00	
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	3,90,617		3,48,963	
b. Guest House Charges/ Rent received for Other facilities	4,99,955		5,56,458	
c. Hostel fee/Rent recovery/Admission/Application Fee	10,33,381		9,11,338	
d. Miscellaneous Income(Tender Fees,RTI charges, Medical Subscription received from Retired employees)	1,43,020		14,070	
e. Sample Analysis Charges	56,48,500		39,51,160	
f. Overhead Charges				
i) Funding Agencies	30,82,902		26,30,586	
ii) From DBT	13,45,000		10,93,404	
4) Deferred Income - Fixed Assets	6,28,80,543		7,42,60,808	
		7,50,23,918		8,43,53,116
TOTAL		7,50,23,918		8,43,53,116

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	12,35,49,980		10,71,20,445	
b) Allowances and Bonus	-		-	
c) Contribution to Provident Fund	39,69,404		5,85,131	
d) Contribution to Other Fund (Specify)	-		-	
e) Staff Welfare Expenses	-		-	
f) Expen.on Empl. Retirement and Terminal Benefits	1,11,56,340		1,02,94,373	
g) Others (Specify)	-		-	
		13,86,75,724		11,79,99,949
TOTAL		13,86,75,724		11,79,99,949


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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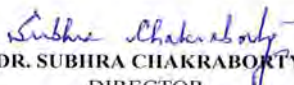
NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES ETC.		Current Year		Previous Year	
1 Consumables					
a. Chemicals ,Glasswares & Consumables	7,73,00,099			5,07,32,411	
b. Other Lab Items	-	7,73,00,099		-	5,07,32,411
2 Contingencies					
a. Publication of Papers	32,42,135			26,53,912	
b. Electricity and water charges	9,13,06,117			7,99,34,205	
c. Seminar,Conference & Workshops	8,53,626			3,19,899	
d. Maintenance of Equipment	2,69,57,416			2,85,00,414	
e. Generator Running Expenses	7,30,345			2,38,202	
f. Maintenance of AC Plant	71,13,996			72,35,232	
g. Maintenance of Building	34,08,612			57,00,362	
h. Housekeeping, Sanitation Services	77,35,376			66,91,148	
i. Vehicles Running and Maintenance					
ii) Petrol ,Oil & Lubricants	7,88,815			2,33,260	
iii) Maintenance	3,70,166			2,52,558	
j. Postage, Telephone and Comm. Charges					
i) Postage	13,441			22,850	
ii) Telephone & Fax	3,29,917			3,82,766	
k. Printing and Stationary	24,82,730			11,16,775	
l. Security expenses	1,87,72,692			1,56,02,856	
m. Auditors Remuneration	47,200			47,200	
n. Committee Meeting Expenses	6,36,040			3,06,289	
o. Legal fees	4,86,396			1,58,783	
p. Journals and periodicals	2,99,384			2,53,630	
q. Advertisement and Publicity	1,15,374			1,47,152	
r. Miscellaneous Contingencies	3,90,299			1,47,343	
s. Contractual Manpower Services	1,79,53,217			1,62,15,515	
t. Rates & Taxes	42,03,810			42,03,810	
u. Professional Charges	37,15,823			17,63,227	
v. Extra Curricular Activities for Students	52,925			1,06,394	
w. NCR Cluster Expenses	1,04,464			23,12,635	
x. Interest refunded to DBT	-	19,21,10,315		-	17,45,46,417
3 Campus/Field Development	1,44,95,325	1,44,95,325		86,38,080	86,38,080
4a. Training affiliation and Others	26,60,134			21,82,602	
4b. NIPGR Fellowship	1,88,20,087	2,14,80,221		2,41,77,533	2,63,60,135
5 Travelling and Conveyance Expenses					
i) Travelling	3,84,571			3,35,128	
ii) Conveyance & Transport	11,223	3,95,794		1,12,410	4,47,538
TOTAL		30,57,81,754			26,07,24,580


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
SCHEDULES FORMING PART OF BALANCE SHEET AS ON 31st MARCH 2022

AMOUNT IN ₹

SCHEDULE 22	Current Year		Previous Year	
EXPENDITURE ON GRANTS,SUBSIDIES ETC.				
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		-		-


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(VIRUL GIROTRA)
PARTNER
Membership No.084312


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, 2022

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 relating 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. During the year income recognised in respect of such Grants amounts to ₹6,28,80,543/-.
3. (a) The depreciation has been provided w.e.f. the date of purchase of fixed assets 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 depreciation in respect of Computers & Peripherals and Books & Journals 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 are acquired 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 ₹22,97,20,855/- 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) Exercise towards physical verification of fixed assets and its reconciliation with the financial records was completed upto the financial year 2021-22.
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 ₹20,27,612/- was available at the end of the year.
6. (a) Construction Cost and Overheads incidental to construction of building of institute 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.
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 ₹44,27,902/- as overheads which includes ₹30,82,902/- from different agencies & ₹13,45,000/- from DBT projects.
 8. The Institute has made a provision of ₹1,11,56,340/- during current financial year 2021-22 towards the terminal benefits payable to staff, as per Actuarial Valuation. The total accumulated value of provisions towards terminal benefits payable as on 31.03.2022 is ₹10,14,93,691/-.
 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 remitted to the Consolidated Fund of India after finalization of accounts. Accordingly, interest on Savings bank account/ Term deposits earned during financial year 2020-21, amounting to ₹1,36,44,666/- in respect of Grants in Aid has been remitted to DBT during the financial year 2021-2022.
 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 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 Committee 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.
 12. Previous year figures have been re-grouped/re-arranged wherever considered necessary.

(RAKESH MOHAN)
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(SANDEEP DATTA)
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(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K. DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N



Place: New Delhi
Date: August 30, 2022

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2022

AMOUNT IN ₹

RECEIPTS	Current Year		Previous Year	
Particulars				
Opening Balance				
In Saving Account/Short Term deposits	36,69,28,384		67,41,53,172	
Reserve & Surplus	-		2,15,000	
Grants Received from Deptt of Biotechnology				
Non recurring	18,25,00,000		2,00,00,000	
Recurring	41,00,00,000		29,50,00,000	
Projects & Fellowships				
Sponsored Projects (Including all receipts & recoverable amounts)	63,75,41,869		60,12,00,931	
Sponsored Fellowship	81,87,379		1,45,01,957	
PSI & AOAP0 Conference 2016	-		-	
Sponsored Seminar/ Conference/ Conclave	-		-	
Interest Earned	1,44,27,174		2,44,65,335	
Security Deposit from Contractors	36,99,671		43,08,809	
New pension Scheme	17,332		10,19,533	
GSTDS received/recovered/GST Payable	58,99,516		53,29,724	
Remittances	4,95,454		17,17,477	
Other Liabilities	19,631		20,000	
Refund of Consumable advance	-		-	
Refund of Equipment advance	-		-	
Refund of Contingency advance	53,135		2,09,373	
Receivables from Income Tax	5,85,324		2,40,738	
Hostel/Mess Security	26,000		30,000	
Other Income	40,12,862		37,73,462	
TOTAL		1,63,43,93,731		1,64,61,85,511

AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.

For V.K.DHINGRA & Co.

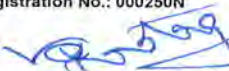
CHARTERED ACCOUNTANTS

Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
PARTNER

Membership No.084312

PLACE: NEW DELHI
DATE: August 30, 2022



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre For Plant Genome Research)
RECEIPTS & PAYMENTS FOR THE YEAR ENDED 31st MARCH 2022

AMOUNT IN ₹

PAYMENTS	Current Year		Previous Year	
Particulars				
Grants under TSA lapsed to Government				
Non recurring	3,71,36,550		-	
Recurring	25,484		-	
Remittance of Refund of Tax to NIPGR C P Fund	8,50,999		-	
Building under Construction (WIP)	12,42,99,087			
Lab Equipment	24,66,849		2,80,23,878	
Office Equipment	1,21,12,661		5,85,894	
Computer/Peripherals	1,27,20,611		10,35,753	
Furniture & Fixture	3,04,333		36,739	
Books & Scientific Journals/ E-Journals	33,63,752		35,43,628	
Vehicle	16,65,455		-	
Manpower				
Salaries and Wages	12,41,44,717		10,70,03,388	
Contribution to Provident fund	39,69,404		5,85,131	
Consumables				
a) Chemicals ,Glasswares & Consumables	7,47,66,049		5,10,85,470	
b) Other Lab Items	-		-	
Contingencies				
a) Publication of Papers	30,06,524		17,95,829	
b) Electricity and water charges	9,74,07,805		7,98,31,087	
c) Seminar,Conference & Workshops	6,36,029		4,24,820	
d) Maintenance of Equipment	2,60,52,333		3,12,70,317	
e) Maintenance of AC Plant	71,03,645		66,52,613	
f) Maintenance of Building	17,81,780		57,69,016	
g) Vehicles Running and Maintenance				
(i) Petrol ,Oil & Lubricants	7,41,648		3,11,195	
(ii) Maintenance	4,83,079		79,065	
h) Postage, Telephone and Comm. Charges				
(i) Postage	4,781		5,294	
(ii) Telephone	3,30,400		3,83,482	
i) Printing and Stationary	25,04,899		11,00,563	
j) Security expenses	1,78,61,772		1,59,48,957	
k) Auditors Remuneration	47,200		47,200	
l) Committee Meeting Expenses	6,24,009		3,02,219	
m) Legal fees	4,65,296		1,30,530	
n) Newspaper and Periodicals	3,06,927		2,40,885	
o) Advertisement and Publicity	61,958		1,77,313	
p) Misc.contingencies	1,84,716		2,48,005	
q)Houskeeping,sanitation & Contract services	2,56,28,055		2,28,47,966	
r) Professional Charges	31,11,913		16,38,483	
s)Rates & Taxes	42,03,810		42,03,810	
t)Extra Curricular Activities for Students	3,715		1,96,394	
u)Generator Running Expenses	7,29,745		2,38,202	
v)Campus/ Field Development	1,43,59,611		83,39,894	
w) Training affiliation and Others	26,60,134		21,82,602	
x) NIPGR Fellowships	1,93,30,544		2,39,34,006	
y) Travelling and Conveyance Expenses				
(i) Travelling	2,96,105		4,82,899	
(ii) Conveyance & Transport	11,223		1,12,410	
z) NIPGR NCR Cluster Expenses	1,04,464		21,77,635	

Continued

Subha Chakraborty



Others				
a) Contingency Advance	5,74,968		9,99,886	
b) Consumable Advance	4,97,734		12,92,685	
c) Equipment advance	-		5,91,529	
d) Security Deposit paid	75,51,153		84,34,842	
e) New Pension Scheme Subscription	1,90,168		9,68,917	
f) Hostel/Mess Security	60,000		70,000	
g) Remittances	4,90,254		18,91,612	
h) Reserve & Surplus	-		-	
Interest refunded to DBT	1,36,44,666		1,57,67,733	
Sponsored Projects	46,86,73,418		82,52,73,827	
Refund to Agencies(DBT/DST)/Funds lapsed	2,89,26,978		20,20,764	
Sponsored Fellowship	83,18,844		1,33,52,267	
Receivable from Income Tax	12,308		34,098	
Sponsored Seminar/ Conference/ Conclave	-		-	
Miscellaneous Liabilities			20,000	
GSTDS/GST/TDS Deposited	47,70,157		55,24,997	
Security Deposit (IGL/M/s Balmer Lawrie)	-		-	
GST Input Tax	31,950		41,400	
Closing Balance				
In Saving Bank Account/Short term Deposit	47,27,81,062		36,69,28,384	
TOTAL		1,63,43,93,731		1,64,61,85,511

AS PER OUR SEPARATE REPORT
OF EVEN DATE ATTACHED.
For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANTS
Firm Registration No.: 000250N



(RAKESH MOHAN)
FINANCE OFFICER



(SANDEEP DATTA)
CONTROLLER OF
ADMINISTRATION



(DR. SUBHRA CHAKRABORTY)
DIRECTOR



(VIPUL GIROTRA)
PARTNER

Membership No.084312

PLACE: NEW DELHI
DATE: August 30, 2022



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

CSIR PROJECT

R/P entitled Characterization of 3-Hydroxy-3-methylglutaryl co-enzyme A reductase (HMGR) GENE in
Cicer arietinum, and its role in abiotic stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

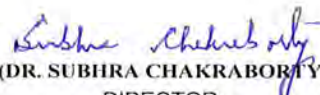
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	33,877	79,379	
Grant- In- Aid for			
i) Staff	57,619	-	
ii) Contingencies	3,98,564	-	
iii) Overheads	-	-	
Interest Earned	518	891	
TOTAL	4,90,578		80,270

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Staff	-	46,393	
ii) Contingencies	-	-	
iii) Overheads	-	-	
Refund to Agency			
Interest	14,686	-	
CLOSING BALANCE			
With Bank in Saving A/c	4,75,892	33,877	
TOTAL	4,90,578		80,270

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
PARTNER

Membership No.084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

CSIR PROJECT

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

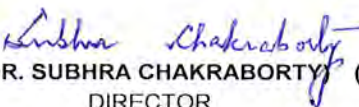
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	24,229		85,998	
Grant- In- Aid for				
i) Staff	4,51,114		-	
ii) Contingencies	4,50,000		-	
iii) Overheads				
Interest Earned	99		538	
TOTAL		9,25,442		86,536

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Staff	4,72,193		60,760	
ii) Contingencies	4,49,474		-	
iii) Overheads				
Refund to Agency				
Interest	-		1,547	
CLOSING BALANCE				
With Bank in Saving A/c	3,775		24,229	
TOTAL		9,25,442		86,536


(RAKESH MOHAN)
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(SANDEEP DATTA)
COA


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Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER

Membership No.084312



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

CSIR PROJECT

R/P entitled Decoding the N-Acetylglucosamine Signaling Pathway in Microbial Pathogens for disease control

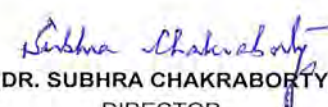
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

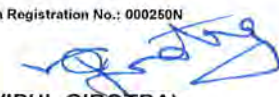
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	13,515	3,14,091	
<u>Grant- In- Aid for</u>			
i) Staff	5,03,710	-	
ii) Contingencies	5,92,639	1,92,109	
iii) Overheads			
<u>Interest Earned</u>	365	354	
TOTAL	11,10,229	5,06,554	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Staff	-	2,60,400	
ii) Contingencies	5,89,888	2,32,639	
iii) Overheads			
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	5,20,341	13,515	
TOTAL	11,10,229	5,06,554	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
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For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER
Membership No.084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Identification and characterization of effectors from necrotrophic blight fungus *Ascochyta blight* and their targets from the chickpea.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

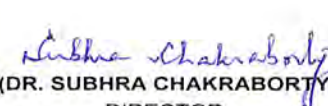
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,15,666		1,12,625
Equipment	-		-
<u>Grant- In- Aid for</u>			
i) Equipment	-		-
ii) Manpower	-		-
iii) Consumable	-		-
iv) Travel	-		-
v) Contingencies	-		-
<u>Interest Earned</u>	3,123		3,041
TOTAL		1,18,789	1,15,666

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		-
ii) Manpower	-		-
iii) Consumable	-		-
iv) Travel	-		-
v) Contingencies	-		-
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,18,789		1,15,666
Equipment	-		-
TOTAL		1,18,789	1,15,666

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Introgression of begomovirus resistance genes in tomato (*Solanum lycopersicum* L.)
using MAS and Genomic approach.

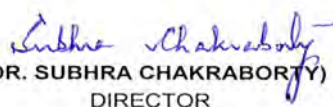
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c Recurring	75,761	73,769	
<u>Grant- In- Aid for</u>			
i) Manpower	-	-	
ii) Consumable	-	-	
iii) Travel	-	-	
iv) Contingencies	-	-	
<u>Interest Earned</u>	2,046	1,992	
TOTAL	77,807	75,761	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	-	-	
ii) Consumable	-	-	
iii) Travel	-	-	
iv) Contingencies	-	-	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c Recurring	77,807	75,761	
TOTAL	77,807	75,761	


(RAKESH MOHAN)
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CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER
Membership No.084312



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

DBT PROJECT

DBT's R/P entitled Investigation of molecular and genetic basis of plant development regulation in response to environmental changes.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

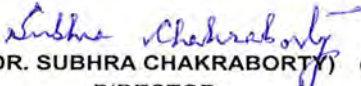
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	113	110	
Grant- In- Aid for			
i) Manpower	-	-	
ii) Research/Contingency grant	-	-	
Interest Earned	3	3	
TOTAL	116	113	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	-	-	
ii) Research/Contingency grant	-	-	
CLOSING BALANCE			
With Bank in Saving A/c	116	113	
TOTAL	116	113	

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Challenge Programme on Chickpea Functional Genomics.

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

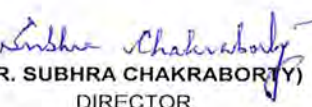
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,47,240	8,04,540	
Equipment	-	-	
<u>Grant- In- Aid for</u>			
i) Equipment	-	-	
ii) Manpower	44,47,879	28,80,760	
iii) Consumable	-	12,65,071	
iv) Travel	-	68,890	
v) Contingencies	-	46,930	
vi) Overheads	-	-	
<u>Interest Earned</u>	3,871	-21,059	
TOTAL	45,98,990	50,45,132	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	39,69,567	31,70,683	
iii) Consumable	-	17,09,332	
iv) Travel	-	17,877	
v) Contingencies	-	-	
vi) Overheads	-	-	
<u>Refund of Interest</u>	3,871		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	6,25,552	1,47,240	
Equipment	-	-	
TOTAL	45,98,990	50,45,132	

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT
R/P entitled Identification and characterization of MicroRNAs regulating embryonic shoot and root Meristems

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,14,682		29,264
Equipment	-		-
Grant- In- Aid for			
i) Equipment	-		-
ii) Manpower	-		3,84,775
iii) Consumable	-		-
iv) Travel	-		-
v) Contingencies	-		-
Interest Earned	4,830		790
TOTAL		2,19,512	4,14,829

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		-
ii) Manpower	-		2,00,147
iii) Consumable	-		-
iv) Travel	-		-
v) Contingencies	-		-
Refund of Interest	790		-
Refund to Agency			
Recurring	2,18,722		-
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-		2,14,682
Equipment	-		-
TOTAL		2,19,512	4,14,829


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Investigation of the role of mitogen activated protein kinase in rice yield

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	50,963		4,77,219
<u>Grant- In- Aid for</u>			
i) Manpower	-		3,00,000
ii) Consumable/Contingencies/Travel	-		1,95,023
<u>Interest Earned</u>	-		1,340
TOTAL		50,963	9,73,582

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Manpower	-		3,25,000
ii) Consumable/Contingencies/Travel	-		5,97,619
<u>Refund to Agency</u>			
Recurring	50,963		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-		50,963
TOTAL		50,963	9,73,582



(RAKESH MOHAN)
FINANCE OFFICER



(SANDEEP DATTA)
COA



(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
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Firm Registration No.: 000250N



(VIPUL GIROTRA)
PARTNER
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

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

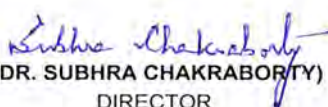
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	8,740	1,30,243	
Grant- In- Aid for			
i) Consumable/Contingencies/Travel	4,91,490	3,70,000	
Interest Earned during the Year	230	230	
TOTAL	5,00,460		5,00,473

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Consumable/Contingencies/Travel	-	4,91,733	
Refund of Interest	230		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	5,00,230	8,740	
TOTAL	5,00,460		5,00,473


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

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CHARTERED ACCOUNTANT
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

ANNEXURE-11

DBT PROJECT

R/P entitled Understanding the Molecular regulation of root Hair Development in Chickpea for Crop Improvement:

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	7,226	1,15,210	
Equipment	2,366	2,366	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	-	-	
iii) Consumable/Contingency/Travel	-	-	
iv) Cash Award	-	-	
Interest Earned	-	252	
TOTAL	9,592	1,17,828	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	-	1,01,936	
iii) Consumable/Contingency/Travel	-	6,300	
vi) Cash Award	-	-	
Refund to Agency			
Recurring	7,226		
Equipment	2,366		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-	7,226	
Equipment	-	2,366	
TOTAL	9,592	1,17,828	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(VIPUL GIOTRA)
PARTNER

Membership No.084312



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

DBT PROJECT

R/P entitled Study of vascular wilt responsive proteome in chickpea-Fusarium

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,00,866		4,82,633
<u>Grant- In- Aid for</u>			
i) Manpower	-		-
ii) Consumable	-		-
iii) Travel	-		-
iv) Contingencies	-		-
v) Overheads charges	-		-
<u>Interest Earned</u>	2,652		2,652
TOTAL		1,03,518	4,85,285

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Manpower	-		-
ii) Consumable	-		3,82,564
iii) Travel	-		-
iv) Contingencies	-		-
v) Overheads charges	-		-
<u>Refund of Interest</u>	2,652		1,855
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,00,866		1,00,866
TOTAL		1,03,518	4,85,285


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

R/P entitled Biofortification of Branched Chain Amino Acid-Leucine in Brassica Crops using CRISPR-Cas9 Mediated Genome Editing

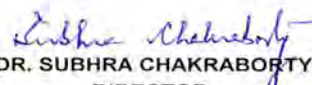
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	1,91,828	1,20,315	
Equipment	-	2,000	
Grant- In- Aid for			
i) Equipment	-	-2,000	
ii) Manpower	3,85,000	8,94,000	
iii) Consumable	-	14,90,000	
iv) Travel	-	-	
v) Contingencies	-	49,000	
vi) Overhead charges	-	1,00,000	
Interest Earned	1,284	-40,548	
TOTAL		5,78,112	26,12,767

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	5,22,200	7,81,226	
iii) Consumable	-	14,94,719	
iv) Travel	-	-	
v) Contingencies	3,753	44,994	
vi) Overhead charges	-	1,00,000	
Refund of Interest	3,303		
Refund to Agency			
Recurring	48,856		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-	1,91,828	
Equipment	-	-	
TOTAL		5,78,112	26,12,767


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

ANNEXURE-14

DBT PROJECT

R/P entitled To Perform Event Selection under Small Scale Open Field Growth Condition and
Substantial Equivalence Test of the Low Glucosinolate Brassica juncea Transgenic Lines

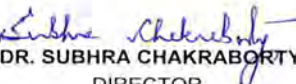
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	6,61,342	3,71,864	
Grant- In- Aid for			
i) Manpower	-	3,29,662	
ii) Consumable	-	9,21,180	
iii) Travel	-	19,500	
iv) Contingencies	-	19,500	
Interest Earned	406	717	
TOTAL	6,61,748		16,62,423

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	-	4,65,672	
ii) Consumable	6,31,249	5,28,531	
iii) Travel	-	-	
iv) Contingencies	-	6,878	
Refund to Agency			
Recurring	30,499		
CLOSING BALANCE			
With Bank in Saving A/c Recurring	-	6,61,342	
TOTAL	6,61,748		16,62,423


(RAKESH MOHAN)
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NEW DELHI

DBT PROJECT

R/P entitled Avanced Research Platform for Crop Sciences

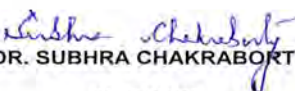
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

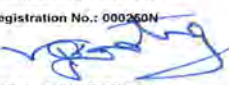
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	8,60,446	75,39,448	
Equipment	1,14,38,413	97,82,117	
<u>Grant- In- Aid for</u>			
i) Equipment	-	-	
ii) Manpower	59,04,304	65,71,295	
iii) Consumable	54,73,678	49,35,790	
iv) Travel	-	-	
v) Contingencies	11,54,935	6,17,657	
<u>Interest Earned</u>	14,625	2,67,971	
TOTAL	2,48,46,401	2,97,14,278	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-16,56,296	
ii) Manpower	43,33,550	65,73,698	
iii) Consumable	53,53,333	54,73,678	
iv) Travel	-	-	
v) Contingencies	13,87,044	9,47,935	
<u>Refund of Interest</u>	2,67,971	60,76,404	
<u>Refund of Equipment grant</u>	1,14,38,413		
<u>Amount under TSA lapsed to</u>			
<u>Govt. Account</u>	1,40,636		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	19,25,454	8,60,446	
Equipment	-	1,14,38,413	
TOTAL	2,48,46,401	2,97,14,278	


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

DBT Cambridge Joint Lectureship Programme

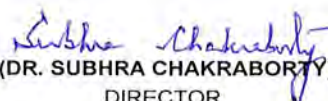
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE With Bank in Saving A/c	35,968	35,022	
Grant- In- Aid for i) Manpower	4,64,120	-	
Interest Earned	971	946	
TOTAL	5,01,059		35,968

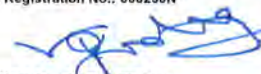
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	2,29,721	-	
Refund to Agency Recurring	2,71,338		
CLOSING BALANCE With Bank in Saving A/c	-	35,968	
TOTAL	5,01,059		35,968


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Determination the role of(Cysteine-Rich Secetory Proteinsantigen 5 and Pathogenesis-Related 1
Proteins(CAP) during Arachis-Bradyrhizobium symbiosis

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	9,65,462	7,67,072	
Equipment	-1,48,081	(1,48,081)	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	-	4,44,201	
iii) Consumable	-	4,95,787	
iv) Travel	-	-	
v) Contingencies	-	46,100	
vi) Overhead Charges	-	-	
Interest Earned	920	4,973	
TOTAL	8,18,301	16,10,052	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	4,26,119	3,94,365	
iii) Consumable	3,52,216	3,48,502	
iv) Travel	-	-	
v) Contingencies	-	46,828	
vi) Overhead Charges	-	-	
Refund of Interest	4,973	2,976	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	1,83,074	9,65,462	
Equipment	-1,48,081	-1,48,081	
TOTAL	8,18,301	16,10,052	

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

DBT PROJECT

Development of an integrated multi-omics analysis platform and its application to elucidate the differential process of silk colouration in the Mugasilworm *Antheria assamensis* Heifer

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	3,05,156	28,709	
<u>Grant- In- Aid for</u>			
i) Manpower	-	5,11,550	
ii) Consumable	-	2,90,668	
iii) Travel	-	49,776	
iv) Contingencies	-	27,606	
v) Overhead Charges	-	10,000	
<u>Interest Earned</u>	5,870	-12,799	
TOTAL		3,11,026	9,05,510

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	85,540	2,63,569	
ii) Consumable	-	2,98,382	
iii) Travel	-	-	
iv) Contingencies	1,499	28,403	
v) Overhead Charges	-	10,000	
<u>Refund of Interest</u>	710		
<u>Refund to Agency</u>			
Recurring	2,23,277		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-	3,05,156	
TOTAL		3,11,026	9,05,510


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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 CRISPR/Cas9 tool in rice to study its role in cell cycle and grain yield

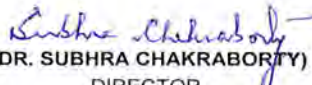
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,56,721		3,48,676
Equipment	2,63,154		4,84,524
<u>Grant- In- Aid for</u>			
i) Equipment	-		-
ii) Manpower	-		2,38,186
iii) Consumable	-		11,76,621
iv) Travel	-		-
v) Contingencies	-		49,612
vi) Overhead Charges	-		1,00,000
<u>Interest Earned</u>	10,383		-45,357
TOTAL		4,30,258	23,52,262

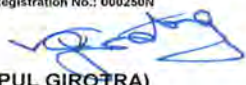
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		2,21,370
ii) Manpower	-		4,38,485
iii) Consumable	-		11,24,394
iv) Travel	-		-
v) Contingencies	-		48,138
vi) Overhead Charges	-		1,00,000
Refund of Interest	35,307		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,31,797		1,56,721
Equipment	2,63,154		2,63,154
TOTAL		4,30,258	23,52,262


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NEW DELHI

DBT PROJECT

Plant Genomics and Genotyping Facility

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,29,20,249	7,69,83,283	
Equipment	11,36,11,095	31,82,44,687	
Grant- In- Aid for			
i) Equipment/Non-recurring	4,23,85,905		
ii) Manpower	50,92,254	41,39,053	
iii) Consumable	10,00,000	-	
iv) Travel	-	-	
v) Contingencies	20,00,000	-21,39,053	
vi) Other Expenses	-52,33,482	-20,00,000	
vii) Overhead Charges	10,00,000	-	
Interest Earned	32,90,921	90,66,966	
Advance Receipts towards Sample Analysis	2,62,16,550		
TOTAL	21,22,83,492	40,42,94,936	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment/Non-recurring	30,00,000	20,46,33,592	
ii) Manpower	51,46,710	72,69,945	
iii) Consumable	29,51,797	-	
iv) Travel	-	-	
v) Contingencies	13,84,514	1,23,117	
vi) Other Expenses	-	-	
vii) Overhead Charges	10,00,000	-	
Refund of Interest	90,66,966	5,57,36,938	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	3,67,36,505	2,29,20,249	
Equipment	15,29,97,000	11,36,11,095	
TOTAL	21,22,83,492	40,42,94,936	



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NEW DELHI

DBT PROJECT

Generating genomic resources for facilitating genetic enhancement of selective *Vigna species* and Horse gram Sub-Project-1, Component-2

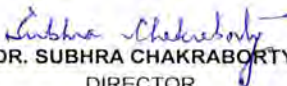
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	18,25,165		24,89,806
Equipment	11,62,826		19,82,550
Grant- In- Aid for			
i) Equipment	-		-
ii) Manpower	33,62,400		4,38,841
iii) Consumable	5,57,894		41,529
iv) Travel	-		-
v) Contingencies	50,000		-
vi) Overhead Charges	50,000		2,00,000
Interest Earned	72,580		-1,78,328
TOTAL		70,80,865	49,74,398

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		8,19,724
ii) Manpower	8,65,544		8,36,420
iii) Consumable	27,200		-
iv) Travel	-		-
v) Contingencies	26,399		-
vi) Overhead Charges	50,000		2,00,000
Refund of Interest	78,555		1,30,263
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	48,70,341		18,25,165
Equipment	11,62,826		11,62,826
TOTAL		70,80,865	49,74,398


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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	4,79,980	10,87,928	
Equipment	28,750	28,750	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	33,55,200	19,90,526	
iii) Consumable	23,04,855	64,77,134	
iv) Travel	14,065	11,470	
v) Contingencies	50,000	49,684	
Interest Earned	5,385	-1,14,481	
TOTAL		62,38,235	95,31,011

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	17,50,168	26,53,360	
iii) Consumable	-	63,04,855	
iv) Travel	-	14,065	
v) Contingencies	-	50,001	
Refund of Interest	44,820		
Refund to Agency			
Equipment	28,750		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	44,14,497	4,79,980	
Equipment	-	28,750	
TOTAL		62,38,235	95,31,011


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DBT PROJECT

Genomic-led improvement of biotic and abiotic stress tolerance in mustard rape for economic and environmental sustainability

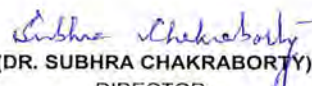
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	8,00,674	4,09,553	
Equipment	-	1,73,741	
Grant- In- Aid for			
i) Equipment	-	-1,73,741	
ii) Manpower	10,16,774	7,81,111	
iii) Consumable	5,00,000	9,87,391	
iv) Travel	-1,80,285	2,00,000	
v) Contingencies	-	46,093	
vi) Others	-	1,00,000	
Interest Earned	2,998	-1,00,924	
TOTAL	21,40,161	24,23,224	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	9,61,051	8,10,909	
iii) Consumable	8,86,157	7,81,743	
iv) Travel	-	-	
v) Contingencies	49,164	-	
vi) Others	1,04,822	29,898	
Refund of Interest	15,749		
Amount under TSA lapsed to Govt. Account	9,180		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	1,14,038	8,00,674	
Equipment	-	-	
TOTAL	21,40,161	24,23,224	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER

Membership No.084312



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

DBT PROJECT

Analysis of Phytochrome interacting Factor (PIF4) and Histone Variant (H2A.Z)-Mediated Thermosensory Regulatory Network in Arabidopsis thaliana

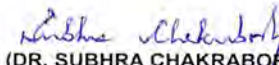
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	6,54,869	53,796	
Equipment	47,253	47,253	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	-	12,00,000	
iii) Consumable	-	4,26,301	
iv) Travel	-	-	
v) Contingencies	-	49,805	
vi) Overheads Charges	-	52,500	
Interest Earned	2,108	2,596	
TOTAL	7,04,230	18,32,251	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	5,74,194	6,00,000	
iii) Consumable	-	4,24,871	
iv) Travel	-	-	
v) Contingencies	-	49,523	
vi) Overheads Charges	-	52,500	
Refund of Interest	2,596	3,235	
Refund to Agency			
Equipment	47,253		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	80,187	6,54,869	
Equipment	-	47,253	
TOTAL	7,04,230	18,32,251	


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DBT PROJECT

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

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	10,27,608	1,62,727	
Grant- In- Aid for			
i) Staff Fund	9,05,505	12,56,912	
ii) Research Fund	34,36,252	15,68,045	
iii) Overheads	-	3,13,581	
Interest Earned	3,031	1,184	
TOTAL	53,72,396		33,02,449

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Staff Fund	11,67,742	6,14,871	
ii) Research Fund	33,75,814	13,46,389	
iii) Overheads	-	3,13,581	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	8,28,840	10,27,608	
TOTAL	53,72,396		33,02,449


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DBT PROJECT

Nitric oxide signalling in response to Botrytis cinerea infection Tomato fruits

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	15,39,482	17,68,772	
Equipment	-	1,73,941	
Grant- In- Aid for			
i) Equipment	-	-1,73,941	
ii) Manpower	4,57,911	1,22,802	
iii) Consumable	-	10,36,009	
iv) Travel	-	-	
v) Contingencies	-	35,554	
Interest Earned	3,563	37,406	
TOTAL	20,00,956	30,00,543	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	3,73,800	6,38,413	
iii) Consumable	9,60,028	7,82,247	
iv) Travel	-	10,644	
v) Contingencies	36,288	8,025	
Refund of Interest	37,406	21,732	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	5,93,434	15,39,482	
Equipment	-	-	
TOTAL	20,00,956	30,00,543	


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DBT PROJECT

Understanding hormonal regulation of root growth plasticity to increase plant productivity under low nitrogen availability in tomato (*Solanum lycopersicum*)

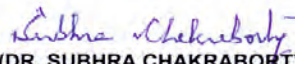
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

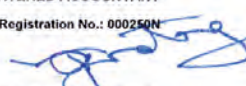
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	26,133	4,29,334	
Equipment	8,800	8,800	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	4,95,616	5,27,000	
iii) Consumable/ Contingency / Travel	9,99,969	9,22,248	
iv) Cash Award	1,00,000	1,00,000	
v) Overhead Charges	1,00,000	1,00,000	
Interest Earned	681	-23,330	
TOTAL	17,31,199	20,64,052	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	3,59,913	5,17,080	
iii) Consumable/ Contingency / Travel	9,99,451	13,12,039	
iv) Cash Award	1,00,000	1,00,000	
v) Overhead Charges	1,00,000	1,00,000	
Refund of Interest	918		
Refund to Agency			
Equipment	8,800		
Recurring	1,62,117		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-	26,133	
Equipment	-	8,800	
TOTAL	17,31,199	20,64,052	


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DBT PROJECT

Understanding mechanistic detail of growth promotion and stress tolerance in legume crop by fungal endophyte through secretome and metabolomics study

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	5,08,323	1,77,448	
Equipment	2,841	10,00,000	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	5,87,389	5,64,883	
iii) Consumable	99,563	1,99,879	
iv) Travel	776	15,000	
v) Contingencies			
Interest Earned	3,343	59	
TOTAL	12,02,235	19,57,269	

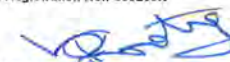
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	9,97,159	
ii) Manpower	5,09,480	2,34,863	
iii) Consumable	-	1,99,563	
iv) Travel	-	-	
v) Contingencies	-	-	
Refund of Interest	59	14,520	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	6,89,855	5,08,323	
Equipment	2,841	2,841	
TOTAL	12,02,235	19,57,269	


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DBT PROJECT

Understanding PTI and ETI in plant-hemibiotrophic fungal interaction through secretome and interaction proteomics studies

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	5,85,027		2,96,265
Equipment	13,536		3,20,000
Grant- In- Aid for			
i) Equipment	-		-
ii) Manpower	3,45,959		8,93,761
iii) Consumable	20,000		6,90,000
iv) Travel	-		48,849
v) Contingencies	-		50,000
vi) Overhead Charges	-		-
Interest Earned	1,699		9,122
TOTAL		9,66,221	23,07,997

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		3,06,464
ii) Manpower	6,00,480		9,05,747
iii) Consumable	2,47,541		4,78,801
iv) Travel	-		-
v) Contingencies	44,462		473
vi) Overhead Charges	-		-
Refund of Interest	9,122		17,949
Refund to Agency			
Recurring	51,080		
Equipment	13,536		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-		5,85,027
Equipment	-		13,536
TOTAL		9,66,221	23,07,997


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DBT PROJECT

Indo-Swiss Unravelling the interaction of mineral nutrition (N and K) and vitamin B6 metabolism
for sustainable agricultural practices

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	7,78,954	8,08,924	
Equipment	36,366	31,00,000	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	9,33,041	9,55,320	
iii) Consumable	14,56,416	13,27,872	
iv) Travel	2,26,174	28,499	
v) Contingencies	26,645	50,000	
vi) Others	48,499	48,741	
Interest Earned	9,524	18,517	
TOTAL	35,15,619	63,37,873	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	30,63,634	
ii) Manpower	9,83,520	8,21,081	
iii) Consumable	14,94,485	14,27,864	
iv) Travel	-	26,174	
v) Contingencies	29,996	26,446	
vi) Others	56,148	42,199	
Refund of Interest Earned	18,517	1,15,155	
Refund to Agency			
Equipment	36,366		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	8,96,587	7,78,954	
Equipment	-	36,366	
TOTAL	35,15,619	63,37,873	

(RAKESH MOHAN)
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	22,83,847	14,41,238	
Equipment	-	5,42,069	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	16,92,517	13,83,271	
iii) Consumable	16,85,349	20,00,000	
iv) Travel	-1,50,000	44,009	
v) Contingencies	-	56,993	
vi) Others	3,15,620	2,00,000	
Interest Earned	24,279	8,280	
TOTAL	58,51,612	56,75,860	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	5,04,251	
ii) Manpower	14,62,704	14,38,317	
iii) Consumable	21,94,552	13,46,842	
iv) Travel	-	-	
v) Contingencies	-	5,133	
vi) Others	2,53,033	-	
Refund of Interest	8,280	59,652	
	-	37,818	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	19,33,043	22,83,847	
Equipment	-	-	
TOTAL	58,51,612	56,75,860	

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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Investigation of chemical war between isoAsp mediated protein damage and repair in seeds towards understanding seed deterioration during aging and seed storage

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c Recurring	8,620		66,179
<u>Grant- In- Aid for</u>			
i) Consumable/Contingencies/ Travel	-		4,34,000
<u>Interest Earned</u>	159		124
TOTAL		8,779	5,00,303

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Consumable/Contingencies/ Travel	2,600		4,91,683
<u>Refund of Interest</u>	124		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c Recurring	6,055		8,620
TOTAL		8,779	5,00,303

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DBT PROJECT

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

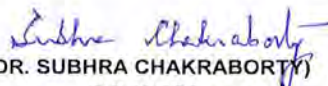
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,17,848	4,77,428	
Grant- In- Aid for			
i) Fellowship	14,22,000	13,99,064	
ii) Reseach/Contingency grant	7,30,233	9,34,043	
iii)Overhead Charges	50,000	50,000	
Interest Earned	534	-8,447	
TOTAL	24,20,615	28,52,088	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	14,22,000	14,22,000	
ii) Reseach/Contingency grant	6,83,377	11,62,240	
iii)Overhead Charges	50,000	50,000	
Refund of Interest	2,701		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	2,62,537	2,17,848	
TOTAL	24,20,615	28,52,088	


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DBT PROJECT

Nutritional Improvement of Indian Oilseed Mustard using CRISPR-Cas9 Mediated Genome Editing

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	6,65,299	11,91,711	
Grant- In- Aid for			
i) Manpower	4,22,048	9,15,000	
ii) Consumable	4,27,000	3,89,469	
iii) Travel	-	18,306	
iv) Contingencies	-	27,537	
v) Overhead Charges	1,00,000	1,00,000	
Interest Earned	1,372	1,924	
TOTAL	16,15,719	26,43,947	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	9,15,360	6,45,688	
ii) Consumable	4,99,720	12,01,697	
iii) Travel	-	-	
iv) Contingencies	46,541	2,422	
v) Overhead Charges	1,00,000	1,00,000	
Refund of Interest Earned	1,924	28,841	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	52,174	6,65,299	
TOTAL	16,15,719	26,43,947	


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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	85,549	1,89,961	
Grant- In- Aid for			
i) Manpower	6,00,000	-	
ii) Consumable	3,49,670	-	
iii) Travel	-	-	
iv) Contingencies	19,850	-	
v) Overhead Charges	45,000	-	
Interest Earned	1,676	2,249	
TOTAL	11,01,745		1,92,210

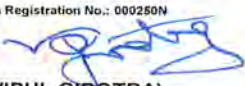
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	6,00,000	82,258	
ii) Consumable	3,48,336	-	
iii) Travel	-	-	
iv) Contingencies	42,394	19,850	
v) Overhead Charges	45,000	-	
Refund of Interest Earned	2,249	4,553	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	63,766	85,549	
TOTAL	11,01,745		1,92,210


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DBT PROJECT

Imparting sheath blight disease tolerance in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

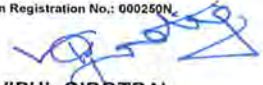
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	79,54,444	67,91,278	
Equipment	-1,54,360	24,20,000	
<u>Grant- In- Aid for</u>			
i) Equipemnt	-	-6,96,780	
ii) Manpower	-	34,95,000	
iii) Consumable	-	69,77,780	
iv) Travel	-	66,000	
v) Contingencies	-	1,53,000	
<u>Interest Earned</u>	39,468	47,959	
TOTAL	78,39,552	1,92,54,237	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipemnt	-	18,77,580	
ii) Manpower	25,94,369	32,98,747	
iii) Consumable	36,33,153	59,00,442	
iv) Travel	-	22,043	
v) Contingencies	62,817	1,53,674	
Refund of Interest Earned	47,959	2,01,667	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	16,55,614	79,54,444	
Equipment	-1,54,360	-1,54,360	
TOTAL	78,39,552	1,92,54,237	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER

Membership No.084312



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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	20,17,573	2,34,70,357	
Equipment	18,32,407	90,99,000	
Grant- In- Aid for			
i) Equipment	-	-	
ii) Manpower	29,33,224	-	
iii) Consumable	4,84,235	-	
iv) Outsourcing	-	-	
v) Travel	-	-	
vi) Contingencies	35,211	-	
Interest Earned	46,656	1,01,217	
TOTAL	73,49,306	3,26,70,574	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	72,66,593	
ii) Manpower	24,32,053	15,49,384	
iii) Consumable	4,97,778	5,84,235	
iv) Outsourcing	5,48,808	1,93,80,171	
v) Travel	-	-	
vi) Contingencies	44,935	40,211	
Refund of Interest Earned	1,03,894		
Refund to Agency			
Unspent equipment Grant	18,32,407		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	18,89,431	20,17,573	
Equipment	-	18,32,407	
TOTAL	73,49,306	3,26,70,574	


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE With Bank in Saving A/c Recurring	1,09,853	7,00,000	
Grant- In- Aid for			
i) Cash Award	-	-	
ii) Research Grant	3,93,035	-	
Interest Earned	813	2,888	
TOTAL	5,03,701		7,02,888

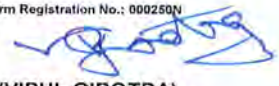
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Cash Award	-	2,00,000	
ii) Research Grant	4,47,557	3,93,035	
Refund of Interest Earned	2,888		
Amount under TSA lapsed to Govt. Account	22,320		
CLOSING BALANCE With Bank in Saving A/c Recurring	30,936	1,09,853	
TOTAL	5,03,701		7,02,888


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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ANNEXURE-39

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

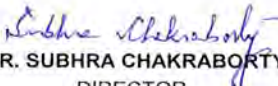
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	1,89,745	-	
Equipment	3,75,063	-	
Grant- In- Aid for			
i) Equipment	-	82,00,000	
ii) Manpower	11,90,400	11,90,400	
iii) Consumable	-	5,00,000	
iv) Travel	-	50,000	
v) Contingencies	-	50,000	
Interest Earned	1,049	38,773	
TOTAL		17,56,257	1,00,29,173

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	3,74,850	78,24,937	
ii) Manpower	10,69,160	10,94,217	
iii) Consumable	-	4,95,699	
iv) Travel	13,125	-	
v) Contingencies	-	49,512	
Refund of Interest Earned	38,773		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	2,60,136	1,89,745	
Equipment	213	3,75,063	
TOTAL		17,56,257	1,00,29,173


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Plant Genomics, Gene Regulatory Network and Novel RNA Molecules

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	23,66,485		-	
Equipment	25,00,000		-	
<u>Grant- In- Aid for</u>				
i) Equipment	-		25,00,000	
ii) Manpower	-		23,95,680	
iii) Consumable	-		4,00,000	
iv) Travel	-		-	
v) Contingencies	-		50,000	
<u>Interest Earned</u>	26,766		32,629	
TOTAL		48,93,251		53,78,309

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	22,37,620		-	
ii) Manpower	16,02,920		1,23,919	
iii) Consumable	-		3,81,905	
iv) Travel	-		-	
v) Contingencies	2,000		6,000	
Refund of Interest Earned	32,629			
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	7,55,702		23,66,485	
Equipment	2,62,380		25,00,000	
TOTAL		48,93,251		53,78,309

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	26,49,838	-	
Equipment	1,66,60,000	-	
Grant- In- Aid for Other Agencies			
Non-Recurring	2,19,14,500	37,25,000	
Recurring	2,85,01,060	2,85,01,060	
Grant- In- Aid for NIPGR			
i) Equipment	-	1,66,60,000	
ii) Works			
ii) Manpower	12,27,600	12,27,600	
iii) Travel	1,00,000	1,00,000	
iv) Contingencies	1,00,000	1,00,000	
v) Other Expenses	10,50,000	10,50,000	
Interest Earned	4,48,440	1,72,238	
TOTAL		7,26,51,438	5,15,35,898

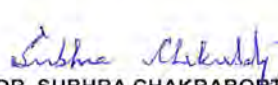
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
Released to Other Agencies			
Non-Recurring	2,19,14,500	37,25,000	
Recurring	2,85,01,060	2,85,01,060	
i) Equipment	6,97,095	-	
ii) Manpower	11,11,079	-	
iii) Travel	1,10,738	-	
iv) Contingencies	1,71,456	-	
v) Other Expenses	2,93,600	-	
Refund of Interest Earned	1,72,238		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	37,16,767	26,49,838	
Equipment	1,59,62,905	1,66,60,000	
TOTAL		7,26,51,438	5,15,35,898

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	4,13,95,659		
Equipment	1,48,63,750		
<u>Grant- In- Aid for</u>			
i) Equipment & Works	1,33,34,250	1,48,63,750	
ii) Manpower	32,43,840	32,43,840	
iii) Consumable	3,75,00,000	3,75,00,000	
iv) Travel	25,000	25,000	
v) Contingencies	25,000	25,000	
vi) Field & Farm Expenses	1,00,000	1,00,000	
vii) Overhead Charges	-	-	
<u>Interest Earned</u>	4,79,948	5,01,819	
TOTAL	11,09,67,447		5,62,59,409

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	1,17,70,623	-	
ii) Manpower	38,70,816	-	
iii) Consumable	7,35,00,780	-	
iv) Travel	67,075	-	
v) Contingencies	23,726		
vi) Field & Farm Expenses	1,59,920		
<u>Refund of Interest Earned</u>	5,01,819		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	46,45,311	4,13,95,659	
Equipment	1,64,27,377	1,48,63,750	
TOTAL	11,09,67,447		5,62,59,409


(RAKESH MOHAN)
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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 2021 TO 31st MARCH 2022

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	5,20,800		
iii) Consumable	3,00,000		
iv) Travel	-		
v) Contingencies	-		
Interest Earned	2,839		
TOTAL		8,23,639	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	4,17,200		
iii) Consumable	2,98,469		
iv) Travel	-		
v) Contingencies	-		
Refund of Interest Earned	-		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	1,07,970		
Equipment	-		
TOTAL		8,23,639	-

For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


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Membership No.084312



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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i)Research Grant	5,00,000		
ii)Cash Award	2,00,000		
<u>Interest Earned</u>	793		
TOTAL		7,00,793	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i)Research Grant	4,58,561		
ii)Cash Award	2,00,000		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	42,232		
Equipment	-		
TOTAL		7,00,793	


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

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

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

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

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	2,54,800		
iii) Consumable	8,98,463		
iv) Travel	-		
v) Contingencies	-		
Refund of Interest Earned	-		
Amount under TSA lapsed to Govt. Account	2,87,537		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-		
Equipment	-		
TOTAL	14,40,800		-


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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	11,96,000		
ii) Manpower	13,24,320		
iii) Consumable	25,00,000		
iv) Travel	50,000		
v) Contingencies	50,000		
vi) Other Expenses	8,00,000		
<u>Interest Earned</u>	51,452		
TOTAL		59,71,772	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	2,03,431		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	-		
vi) Other Expenses	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	45,72,341		
Equipment	11,96,000		
TOTAL		59,71,772	

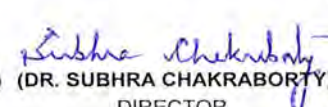
For V.K.DHINGRA & Co.

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NEW DELHI

DBT PROJECT

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

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring			
Equipment			
Grant- In- Aid for Other Agencies			
Non-Recurring	1,22,43,550		
Recurring	1,96,64,240		
Grant- In- Aid for			
i) Non-recurring	24,98,000		
ii) Website Development	19,24,000		
iii) Manpower	54,17,000		
iv) Website Maintenance	5,00,000		
v) Organisation of Site Visits	15,00,000		
vi) Organizing meeting of APEX	3,00,000		
vii) Organizing awareness programs/Stakeholders meet	10,00,000		
viii) Outsourcing for Management	10,00,000		
ix) Consumables	10,00,000		
x) Contingencies	3,00,000		
xi) CONSUMABLES Including Diagnostic Kits	1,50,00,000		
Receipts against Testing/Certification	30,41,260		
Interest Earned	1,71,081		
TOTAL	6,55,59,131		


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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DBT PROJECT

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

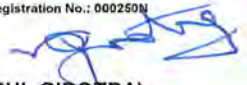
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>Released to Other Agencies</u>			
Non-Recurring	1,22,43,550		
Recurring	1,96,64,240		
i) Non-recurring	9,32,163		
ii) Website Development	-		
iii) Manpower	3,20,552		
iv) Website Maintenance	24,599		
v) Organisation of Site Visits	48,000		
vi) Organizing meeting of APEX	-		
vii) Organizing awareness programs/Stakeholders meet	-		
viii) Outsourcing for	-		
ix) Consumables	5,79,692		
x) Contingencies	21,426		
xi) CONSUMABLES Including	1,48,85,753		
Refund of Interest Earned	-		
Amount under TSA lapsed to Govt. account	3,64,563		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,49,70,756		
Equipment	15,03,837		
TOTAL	6,55,59,131		


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DBT PROJECT

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

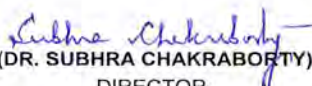
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

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	6,91,920		
iii) Consumable	5,00,000		
iv) Travel	30,000		
v) Contingencies	20,000		
Interest Earned	6,485		
TOTAL		12,48,405	-

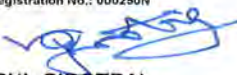
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	28,520		
iii) Consumable	2,50,638		
iv) Travel	-		
v) Contingencies	2,000		
Refund of Interest Earned	-		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	9,67,247		
Equipment	-		
TOTAL		12,48,405	-


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NEW DELHI

DBT PROJECT

Platform for Measurement of Free Radicals (PMFR)

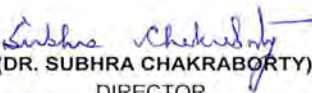
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	3,53,34,000		
ii) Manpower	21,87,360		
iii) Consumable	16,00,000		
iv) Travel	50,000		
v) Contingencies	50,000		
<u>Interest Earned</u>	2,62,049		
TOTAL	3,94,83,409		-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	-		
iii) Consumable	3,99,309		
iv) Travel	-		
v) Contingencies	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	37,50,100		
Equipment	3,53,34,000		
TOTAL	3,94,83,409		-


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER
Membership No.084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	5,72,00,000		
ii) Manpower	31,47,120		
iii) Consumable	15,00,000		
iv) Travel	50,000		
v) Contingencies	2,00,000		
vi) Other Expenses	1,00,000		
<u>Interest Earned</u>	2,79,887		
TOTAL	6,24,77,007		-

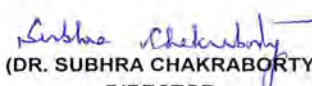
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	-		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	-		
vi) Other Expenses	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	52,77,007		
Equipment	5,72,00,000		
TOTAL	6,24,77,007		-

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	-		
ii) Manpower	12,05,280		
iii) Consumable	9,00,000		
iv) Travel	50,000		
v) Contingencies	50,000		
	-		
<u>Interest Earned</u>	2,712		
TOTAL		22,07,992	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	1,14,788		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	435		
	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	20,92,769		
Equipment	-		
TOTAL		22,07,992	


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DBT PROJECT

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

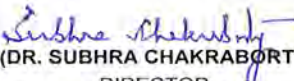
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

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	6,91,920		
iii) Consumable	4,50,000		
	-		
Interest Earned	5,082		
TOTAL		11,47,002	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	-		
iii) Consumable	12,657		
Refund of Interest Earned	-		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	11,34,345		
Equipment	-		
TOTAL		11,47,002	-


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	30,13,000		
ii) Manpower	10,43,520		
iii) Consumable	8,00,000		
iv) Travel	50,000		
v) Contingencies	50,000		
	-		
<u>Interest Earned</u>	1,100		
TOTAL		49,57,620	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		
ii) Manpower	-		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	19,44,620		
Equipment	30,13,000		
TOTAL		49,57,620	-


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DBT PROJECT

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

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring			
Equipment			
<u>Grant- In- Aid for</u>			
i) Equipment	9,00,000		
ii) Manpower	-		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	-		
<u>Interest Earned</u>	192		
TOTAL		9,00,192	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		
ii) Manpower	-		
iii) Consumable	-		
iv) Travel	-		
v) Contingencies	-		
Refund of Interest Earned	-		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	192		
Equipment	9,00,000		
TOTAL		9,00,192	



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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

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	-		
iii) Consumable/Travel/Contingency	10,00,000		
iv) Fellowship	9,00,000		
Interest Earned	8,491		
TOTAL		29,08,491	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	-		
iii) Consumable/Travel/Contingency	-		
iv) Fellowship	4,50,000		
Refund of Interest Earned	-		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	14,58,491		
Equipment	10,00,000		
TOTAL		29,08,491	-

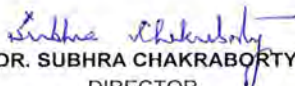
For V.K.DHINGRA & Co.

CHARTERED ACCOUNTANT

Firm Registration No.: 000250N


(RAKESH MOHAN)
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(SANDEEP DATTA)
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(VIPUL GIOTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DBT PROJECT

Understanding the molecular mechanism of higher nitrogen fixation efficiency in *Cicer arietinum* and
Medicago truncatula root nodules: A multi-omics approach

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

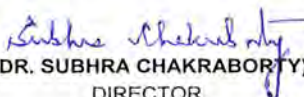
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring			
Equipment			
Grant- In- Aid for			
i) Equipment	10,00,000		
ii) Manpower	6,91,920		
iii) Consumable/Travel/Contingency	5,38,720		
iv) Fellowship	9,00,000		
Interest Earned	12,400		
TOTAL	31,43,040		-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Manpower	-		
iii) Consumable/Travel/Contingency	-		
iv) Fellowship	3,75,000		
Refund of Interest Earned	-		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	17,68,040		
Equipment	10,00,000		
TOTAL	31,43,040		-

For V.K.DHINGRA & Co.
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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DST PROJECT

R/P entitled Calcium regulated plant defense strategies upon insect pest attack

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u> With Bank in Saving A/c	11,36,241	20,65,042	
<u>Grant - In - Aid for</u> i) Equipment/Manpower /Consumables/Contingency / Travel	-	-	
<u>Interest earned</u>	3,575	29,872	
TOTAL	11,39,816	20,94,914	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment/Manpower /Consumables/Contingency / Travel	9,59,709	9,58,673	
<u>Refund to Agency</u> Recurring	1,80,107		
<u>CLOSING BALANCE</u> With Bank in Saving A/c	-	11,36,241	
TOTAL	11,39,816	20,94,914	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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NEW DELHI

DST PROJECT

Indo-South Africa R/P entitled Elucidating stress-responsive pathways by comparative proteome mining in the legumes and cereals

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	4,43,523	6,71,783	
<u>Grant- In- Aid for</u>			
i) Manpower	1,86,210	-	
ii) Consumables	-	-	
iii) Travel	-	-	
iv) Contingencies	-	-	
<u>Interest earned</u>	11,975	11,660	
TOTAL	6,41,708	6,83,443	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	2,16,130	2,36,516	
ii) Consumables	-	-	
iii) Travel	-	-	
iv) Contingencies	-	2,050	
Refund of Interest Earned	-	1,354	
<u>Refund to Agency</u>			
Recurring	4,25,578		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	-	4,43,523	
TOTAL	6,41,708	6,83,443	


(RAKESH MOHAN)
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(SANDEEP DATTA)
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NEW DELHI

DST PROJECT

R/P entitled Investigating the roles of heterotrimeric G-protein components (G α and RGS) towards governing agronomical traits and abiotic stress tolerance in Indian oilseed mustard

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	6,07,534	7,44,083	
Equipment	2,000	2,000	
<u>Grant- In- Aid for</u>			
i) Equipment	-	-	
ii) Manpower	-	86,800	
iii) Consumables	-	5,24,696	
iv) Travel	-	-	
v) Contingencies	-	-	
vi) Overhead charges	-	88,504	
<u>Interest Earned</u>	1,032	2,598	
TOTAL	6,10,566	14,48,681	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	-	3,34,280	
iii) Consumables	5,09,760	3,99,338	
iv) Travel	-	-	
v) Contingencies	48,769	17,025	
vi) Overhead charges	-	88,504	
<u>Refund to Agency</u>			
Recurring	50,037		
Equipment	2,000		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-	6,07,534	
Equipment	-	2,000	
TOTAL	6,10,566	14,48,681	


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DST PROJECT

Comparative analysis of the epigenetic landscape to heat stress adaptation in two contrasting tomato cultivars

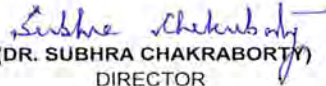
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	68,936	1,17,383	
<u>Grant- In- Aid for</u>			
i) Manpower	2,91,000	7,34,069	
ii) Consumable/Contingency/Travel	3,59,000	3,27,805	
iii) Overhead Charges	-	1,38,126	
<u>Interest Earned</u>	1,861	637	
TOTAL	7,20,797		13,18,020

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	18,800	7,80,302	
ii) Consumable/Contingency/Travel	2,94,994	3,30,656	
iii) Overhead Charges	-	1,38,126	
<u>Refund to Agency</u>			
Recurring	4,07,003		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	-	68,936	
TOTAL	7,20,797		13,18,020


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DST PROJECT

Targeted exome and transcriptome sequencing of lentil for discovery of genetic polymorphisms and construction of a gene expression atlas

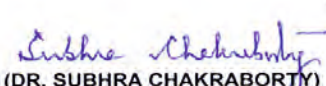
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	4,26,451	4,15,240	
Grant - In - Aid for			
i) Manpower	-	-	
ii) Consumable/Contingencies/Travel	10,16,437	-	
iii) Overheads	1,83,563	-	
Interest Earned	993	11,211	
TOTAL	16,27,444		4,26,451

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	-	-	
ii) Consumable/Contingencies/Travel	3,89,678	-	
iii) Overheads	1,83,563	-	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	10,54,203	4,26,451	
TOTAL	16,27,444		4,26,451


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DST PROJECT

Understanding the role of nodule specific PIN-LIKES (PILS) protein in peanut root nodule development

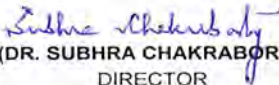
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	93,234	48,169	
Equipment	19,219	3,27,919	
<u>Grant - In - Aid for</u>			
i) Equipment	-	-	
i) Manpower	4,94,940	3,65,800	
ii) Consumable/Contingencies/Travel	3,55,060	4,34,200	
iii) SSR	-	-	
iv) Overheads	1,00,000	1,00,000	
<u>Interest Earned</u>	1,419	2,956	
TOTAL	10,63,872	12,79,044	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	3,08,700	
i) Manpower	4,97,683	3,84,400	
ii) Consumable/Contingencies/Travel	3,97,076	3,73,491	
iii) SSR	-	-	
iv) Overheads	1,00,000	1,00,000	
<u>Refund to Agency</u>			
Equipment	19,219		
Interest on Equipment grant	173		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	49,721	93,234	
Equipment	-	19,219	
TOTAL	10,63,872	12,79,044	


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DST PROJECT

Deciphering Jasmonic Acid biosynthesis pathway and its role in potassium (K) deficiency tolerance in chickpea (Cicer arietinum)"

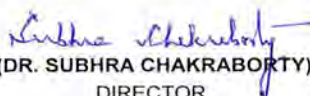
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	81,945	1,47,160	
Equipment	19,140	19,140	
<u>Grant - In - Aid for</u>			
i) Equipment	-	-	
i) Manpower	4,20,000	3,72,000	
ii) Consumable/Contingencies/Travel	5,10,000	5,08,000	
iii) SSR	-	-	
iv) Overheads	70,000	1,20,000	
<u>Interest Earned</u>	1,490	2,658	
TOTAL	11,02,575	11,68,958	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
i) Manpower	4,15,762	4,29,282	
ii) Consumable/Contingencies/Travel	5,60,145	5,18,591	
iii) SSR	-	-	
iv) Overheads	70,000	1,20,000	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	37,528	81,945	
Equipment	19,140	19,140	
TOTAL	11,02,575	11,68,958	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER
Membership No.084312



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

DST PROJECT

Physiological and molecular characterization of root developmental plasticity under low nitrogen availability

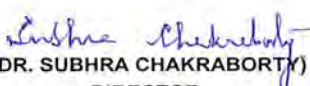
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	95,404		5,41,443
Equipment	393		76,371
<u>Grant - In - Aid for</u>			
i) Equipment	-		-
i) Manpower	4,22,840		2,30,640
ii) Consumable/Contingencies/Travel	2,81,733		3,19,360
iii) SSR	-		-
iv)Overheads	1,45,427		1,00,000
<u>Interest Earned</u>	1,258		2,519
TOTAL		9,47,055	12,70,333

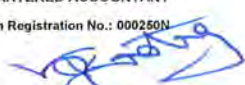
PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment	-		75,978
i) Manpower	3,07,520		2,98,840
ii) Consumable/Contingencies/Travel	4,46,255		6,99,718
iii) SSR	-		-
iv)Overheads	1,45,427		1,00,000
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	47,460		95,404
Equipment	393		393
TOTAL		9,47,055	12,70,333


(RAKESH MOHAN)
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NEW DELHI

DST PROJECT
J.C.Bose Fellowship- Dr.Manoj Prasad

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,17,979	2,46,838	
Grant - In - Aid for			
i) Fellowship	2,00,000	3,00,000	
ii) Consumable/ Travel/Contingencies	14,00,000	12,50,000	
iii) Overheads	1,00,000	1,00,000	
Interest Earned	1,526	2,017	
TOTAL	19,19,505	18,98,855	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	3,00,000	3,25,000	
ii) Consumable/ Travel/Contingencies /Equipment	14,10,819	12,55,876	
iii) Overheads	1,00,000	1,00,000	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	1,08,686	2,17,979	
TOTAL	19,19,505	18,98,855	


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DST PROJECT
INSPIRE Fellow Award- Dr. Deepika Sharma

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	23,16,920	1,04,380	
Grant- In- Aid for			
i) Manpower	-	33,55,500	
ii) Consumable/Contingency/Travel/Equipment	-	11,95,610	
iii) Overhead Charges	-	62,928	
Interest Earned	1,870	2,818	
TOTAL	23,18,790		47,21,236

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	16,17,967	17,86,733	
ii) Consumable/Contingency/Travel	6,23,521	5,85,101	
iii) Overhead Charges	-	32,482	
Refund of Interest Earned	6,157		
CLOSING BALANCE			
With Bank in Saving A/c	71,145	23,16,920	
TOTAL	23,18,790		47,21,236


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DST(SERB NPDF) PROJECT

mQTL-seq approach for identification of responsible genomic regions for spot blotch resistance in bread wheat and development of markers for molecular breeding

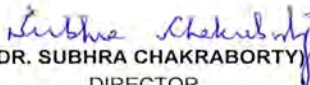
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	34,266	28,620	
<u>Grant- In- Aid for</u>			
i) Manpower	4,09,200	9,75,760	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	50,000	
<u>Interest Earned</u>	23	30	
TOTAL	4,43,489		12,54,410

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	4,42,200	9,70,200	
ii) Consumable/Contingency/Travel	-	1,99,944	
iii) Overhead Charges	-	50,000	
<u>Refund to Agency</u>			
Recurring	1,289		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	-	34,266	
TOTAL	4,43,489		12,54,410


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NEW DELHI

DST(SERB NPDF) PROJECT

Financial Sanction under Teacher Associateship for Research Excellence (TARE) to Dr. Raghuvendra Kumar Mishra

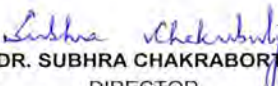
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	87,425		85,127	
Grant- In- Aid for				
i) Manpower	-		-	
ii) Consumable/Contingency/Travel	-		-	
iii) Overhead Charges	-		-	
Interest Earned	473		2,298	
TOTAL		87,898		87,425

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	60,000		-	
ii) Consumable/Contingency/Travel	-		-	
iii) Overhead Charges	9,900		-	
CLOSING BALANCE				
With Bank in Saving A/c	17,998		87,425	
TOTAL		87,898		87,425


(RAKESH MOHAN)
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DST PROJECT

Transcriptional repressors as friends or foes: Utilization to increase seed size in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

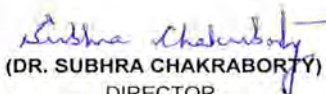
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	2,95,357	9,47,825	
<u>Grant - In - Aid for</u>			
i) Manpower	2,30,000	-	
ii) Consumable/Contingencies/Travel	4,70,000	-	
iii) SSR	-	-	
iv) Overheads	1,00,000	-	
<u>Interest Earned</u>	1,238	7,765	
TOTAL	10,96,595	9,55,590	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	2,22,249	2,30,640	
ii) Consumable/Contingencies/Travel	7,27,264	4,19,605	
iii) SSR	-	9,988	
iv) Overheads	1,00,000	-	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	47,082	2,95,357	
TOTAL	10,96,595	9,55,590	

For V.K.DHINGRA & Co.
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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DST PROJECT

Genome-wide identification and characterization of fusion events in different plant species

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,65,846	6,10,872	
Equipment	340	2,60,000	
<u>Grant - In - Aid for</u>			
i) Equipment	-	-	
ii) Manpower	4,80,000	-	
iii) Consumable/Contingencies/Travel	88,500	2,00,000	
iv) SSR	-	-	
v) Overheads	81,500	50,000	
<u>Interest Earned</u>	4,487	4,369	
TOTAL	8,20,673	11,25,241	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	2,59,660	
ii) Manpower	2,55,755	3,07,520	
iii) Consumable/Contingencies/Travel	2,19,233	3,31,875	
iv) SSR	-	10,000	
v) Overheads	81,500	50,000	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	2,63,845	1,65,846	
Equipment	340	340	
TOTAL	8,20,673	11,25,241	



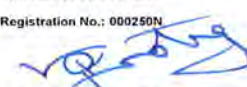
(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

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DST PROJECT

Genome-wide identification and characterization of transfer RNA derived fragments (tRFs) in chickpea

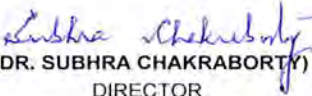
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,13,159	4,43,010	
Equipment	1,915	1,915	
Grant - In - Aid for			
i) Equipment	-	-	
ii) Manpower	1,35,000	-	
iii) Consumable/Contingencies/Travel	1,74,284	5,50,000	
iv) SSR	-	-	
v) Overheads	1,40,716	50,000	
Interest Earned	1,409	5,654	
TOTAL	6,66,483	10,50,579	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	2,70,361	2,44,239	
iii) Consumable/Contingencies/Travel	1,83,302	5,41,266	
iv) SSR	-	-	
v) Overheads	1,40,716	50,000	
Refund to Agency			
Equipment	1,915		
Recurring	70,189		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	-	2,13,159	
Equipment	-	1,915	
TOTAL	6,66,483	10,50,579	


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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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DST PROJECT

Molecular characterization of flavonol biosynthesis in banana: Towards development of flavonol enriched banana

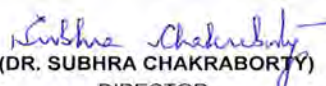
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	1,24,396	1,10,340	
Equipment	70,889	6,69,389	
<u>Grant - In - Aid for</u>			
i) Equipment	-	-	
ii) Consumable/Contingencies/Travel	3,63,056	5,89,000	
iii) SSR	-	-	
iv) Overheads	36,944	1,11,000	
<u>Interest Earned</u>	3,297	4,604	
TOTAL	5,98,582	14,84,333	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	5,98,500	
ii) Consumable/Contingencies/Travel	3,48,972	5,79,548	
iii) SSR	10,000	-	
iv) Overheads	36,944	1,11,000	
<u>Refund to Agency</u>			
Recurring	1,31,777		
Equipment	70,889		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-	1,24,396	
Equipment	-	70,889	
TOTAL	5,98,582	14,84,333	


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SERB PROJECT

Development of integrated multi-omics database for understanding combined stress tolerance in plants

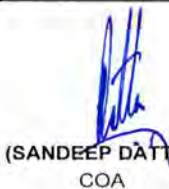
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	14,927	6,48,377	
Equipment			
<u>Grant - In - Aid for</u>			
i) Equipment	-	-	
ii) Manpower	5,20,800	23,200	
iii) Consumable/Contingencies/Travel	2,54,808	3,02,600	
iv) SSR	-	-	
v) Overheads	74,392	74,200	
<u>Interest Earned</u>	403	392	
TOTAL	8,65,330	10,48,769	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-	-	
ii) Manpower	5,20,800	5,43,200	
iii) Consumable/Contingencies/Travel	2,07,627	4,06,442	
iv) SSR	-	10,000	
v) Overheads	74,392	74,200	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	62,511	14,927	
Equipment	-	-	
TOTAL	8,65,330	10,48,769	



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DST PROJECT
J.C.Bose Fellowship- Dr.Subhra Chakraborty

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	1,60,925	17,82,063	
Grant - In - Aid for			
i) Fellowship	3,00,000	50,000	
ii) Consumable/ Travel/Contingencies /Equipment	13,50,000	50,000	
iii)Overheads	1,00,000	50,000	
Interest Earned	509	4,231	
TOTAL	19,11,434		19,36,294

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	2,94,828	3,25,000	
ii) Consumable/ Travel/Contingencies /Equipment	14,48,444	14,00,369	
iii)Overheads	1,00,000	50,000	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	68,162	1,60,925	
TOTAL	19,11,434		19,36,294


(RAKESH MOHAN)
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SERB PROJECT

Deciphering role(s) of post-translational modifications and chromatin regulation of immunity in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	14,91,575	23,80,137	
Grant - In - Aid for			
i) Manpower	-	-	
ii) Consumable/Contingencies/Travel	3,84,161	2,00,000	
iii) SSR	-	-	
iv) Overheads	1,15,839	-	
Interest Earned	1,720	39,214	
TOTAL	19,93,295	26,19,351	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	6,02,640	2,00,880	
ii) Consumable/Contingencies/Travel	12,09,400	9,26,896	
iii) SSR	-	-	
iv) Overheads	1,15,839	-	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	65,416	14,91,575	
TOTAL	19,93,295	26,19,351	


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SERB PROJECT

The role of phytooglobin nitric oxide cycle in oxygen sensing and plasticity of mitochondrial response to low oxygen stress in plants

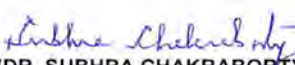
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	1,56,758		11,69,868
Equipment	3,19,998		3,19,998
Grant - In - Aid for			
i) Equipment	-		-
ii) Manpower	5,20,800		-
iii) Consumable/Contingencies/Travel	5,72,470		-
iv) SSR	-		-
v) Overheads	1,06,730		-
Interest Earned	11,701		12,534
TOTAL		16,88,457	15,02,400

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Equipment			
ii) Manpower	5,20,800		4,42,680
iii) Consumable/Contingencies/Travel	6,13,792		5,82,964
iv) SSR			
v) Overheads	1,06,730		-
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	1,27,137		1,56,758
Equipment	3,19,998		3,19,998
TOTAL		16,88,457	15,02,400


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER

Membership No.084312



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

ANNEXURE-77

DST PROJECT

Financial Approval of the SwarnaJayanti Fellowship to Dr. Jitender Giri

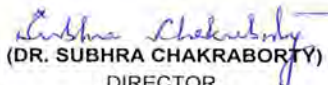
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c Recurring	2,54,967		3,00,750
<u>Grant - In - Aid for</u>			
i) Fellowship	6,50,000		-
ii) Consumable/ Travel/Contingencies /Equipment	-		4,80,000
iii) Overhead Charges	-		20,000
<u>Interest Earned</u>	2,619		4,745
TOTAL		9,07,586	8,05,495

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Fellowship	3,25,000		3,00,000
ii) Consumable/ Travel/Contingencies /Equipment	1,78,219		2,29,778
iii) Overhead Charges	-		20,000
Refund of Interest Earned	4,745		750
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c Recurring	3,99,622		2,54,967
TOTAL		9,07,586	8,05,495


(RAKESH MOHAN)
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SERB PROJECT

Unlinking phosphate deficiency responses from their adverse effects on growth in rice

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

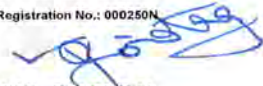
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	2,33,586	25,34,733	
Equipment	75,916	15,00,000	
Grant - In - Aid for			
i) Equipment	-	-	
ii) Manpower	13,58,380	-	
iii) Consumable/Contingencies/Travel	19,40,168	-	
iv) Overheads	4,01,452	-	
Interest Earned	6,271	8,137	
TOTAL	40,15,773	40,42,870	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	45,508	14,24,084	
ii) Manpower	7,81,021	7,20,200	
iii) Consumable/Contingencies/Travel	5,33,439	15,89,084	
iv) Overheads	2,82,712	-	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	23,42,685	2,33,586	
Equipment	30,408	75,916	
TOTAL	40,15,773	40,42,870	


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DST(SERB NPDF) PROJECT

The role of non-symbiotic haemoglobin, nitrate nutrition to increase energy efficiency under hypoxia in rice and wheat

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	1,36,075	1,32,498	
<u>Grant- In- Aid for</u>			
i) Manpower	-	-	
ii) Consumable/Contingency/Travel	-	-	
iii) Overhead Charges	-	-	
<u>Interest Earned</u>	3,674	3,577	
TOTAL	1,39,749	1,36,075	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	-	-	
ii) Consumable/Contingency/Travel	-	-	
iii) Overhead Charges	-	-	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	1,39,749	1,36,075	
TOTAL	1,39,749	1,36,075	


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DST(SERB NPDF) PROJECT

Deciphering the role of auxin-brassinosteroid crosstalk in the leaf development cascades under adverse environmental conditions

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	1,42,334	2,69,617	
<u>Grant- In- Aid for</u>			
i) Manpower	-	8,18,400	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	50,000	
<u>Interest Earned</u>	34	-6,603	
TOTAL	1,42,368	13,31,414	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	1,40,947	9,49,520	
ii) Consumable/Contingency/Travel	-	1,89,559	
iii) Overhead Charges	-	50,000	
<u>Refund to Agency</u>			
Recurring	1,421		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	-	1,42,334	
TOTAL	1,42,368	13,31,414	

(RAKESH MOHAN)
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DST(SERB NPDF) PROJECT

Exploring the role of post-translational modification of jasmonate signaling genes in low phosphate tolerance

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	8,34,723	8,31,677	
<u>Grant- In- Aid for</u>			
i) Manpower	4,09,200	8,13,723	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	50,000	
<u>Interest Earned</u>	384	2,742	
TOTAL	12,44,307	18,98,142	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	8,18,400	8,18,400	
ii) Consumable/Contingency/Travel	1,93,496	1,95,019	
iii) Overhead Charges	-	50,000	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	2,32,411	8,34,723	
TOTAL	12,44,307	18,98,142	

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DST(SERB NPDF) PROJECT

Development of CRISPR/Cas9 based OsMED15 epiallele for increasing rice grain length

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	9,43,513	9,38,898	
Grant- In- Aid for			
i) Manpower	-	8,15,592	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	50,000	
Interest Earned	7,218	6,936	
TOTAL	9,50,731		20,11,426

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	4,06,927	8,18,400	
ii) Consumable/Contingency/Travel	1,77,862	1,99,513	
iii) Overhead Charges	-	50,000	
Refund to Agency			
Recurring	3,65,942		
CLOSING BALANCE			
With Bank in Saving A/c	-	9,43,513	
TOTAL	9,50,731		20,11,426

(RAKESH MOHAN)

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DST(SERB NPDF) PROJECT

Understanding the molecular crosstalk between early Spodoptera perception and Jasmonate biosynthesis

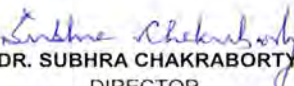
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	9,10,597	9,46,661	
Grant- In- Aid for			
i) Manpower	-	8,14,883	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	50,000	
Interest Earned	301	8,569	
TOTAL	9,10,898	20,20,113	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	7,43,144	8,18,400	
ii) Consumable/Contingency/Travel	1,54,109	2,41,116	
iii) Overhead Charges	-	50,000	
Refund to Agency			
Recurring	13,645		
CLOSING BALANCE			
With Bank in Saving A/c	-	9,10,597	
TOTAL	9,10,898	20,20,113	


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DST(SERB NPDF) PROJECT

Integrating omics approaches to understand the molecular mechanism underlying plants response to tomato leaf curl disease- Woman Excellence Award

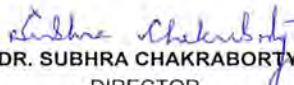
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	14,485	6,00,000	
<u>Grant- In- Aid for</u>			
i) Consumable/Contingency/Travel	5,00,000	-	
ii) Overhead Charges	1,00,000	-	
<u>Interest Earned</u>	391	381	
TOTAL	6,14,876	6,00,381	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Consumable/Contingency/Travel	4,33,802	4,85,896	
ii) Overhead Charges	1,00,000	1,00,000	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	81,074	14,485	
TOTAL	6,14,876	6,00,381	


(RAKESH MOHAN)
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DST PROJECT

J.C.Bose Fellowship- Dr.Debasis Chattopadhyay

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c Recurring	2,93,160		
<u>Grant - In - Aid for</u>			
i) Fellowship	1,75,000	3,00,000	
ii) Consumable/ Travel/Contingencies /Equipment	13,25,000	10,00,000	
iii)Overheads	1,00,000	1,00,000	
<u>Interest Earned</u>	2,209	3,584	
TOTAL	18,95,369	14,03,584	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	3,00,000	1,41,129	
ii) Consumable/ Travel /Contingencies /Equipment	6,41,715	8,69,295	
iii)Overheads	1,00,000	1,00,000	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c Recurring	8,53,654	2,93,160	
TOTAL	18,95,369	14,03,584	

(RAKESH MOHAN)
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DST PROJECT

Financial Approval of the SwarnaJayanti Fellowship to Dr. Gopaljee Jha

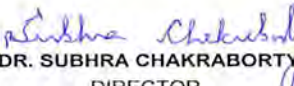
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c Recurring	2,08,078	-	
<u>Grant - In - Aid for</u>			
i) Fellowship	-	-	
ii) Consumable/ Travel/ Contingencies /Equipment	3,00,000	3,00,000	
iii) Overhead Charges	-	-	
<u>Interest Earned</u>	174	1,626	
TOTAL	5,08,252	3,01,626	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	3,00,000	93,548	
ii) Consumable/ Travel/ Contingencies /Equipment	-	-	
iii) Overhead Charges	1,626	-	
<u>Refund of Interest Earned</u>			
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c Recurring	2,06,626	2,08,078	
TOTAL	5,08,252	3,01,626	


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SERB PROJECT
Enhancing Sheath Blight disease tolerance in rice

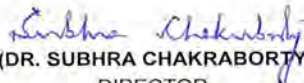
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	23,71,029	-	
Grant - In - Aid for			
i) Manpower	7,09,648	8,03,520	
ii) Consumable	15,00,000	15,00,000	
iii) Travel	2,25,000	25,000	
iv) Contingencies	25,000	25,000	
v) Overheads	2,40,352	2,40,352	
Interest Earned	20,472	17,509	
TOTAL	50,91,501	26,11,381	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	6,69,600	-	
ii) Consumable	13,99,458	-	
iii) Travel	-	-	
iv) Contingencies	23,600	-	
v) Overheads	2,40,352	2,40,352	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	27,58,491	23,71,029	
TOTAL	50,91,501	26,11,381	


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DST PROJECT

Structure and Biochemical characterization of plant SLX1, a novel structure-specific endonuclease involved in DNA repair and recombination

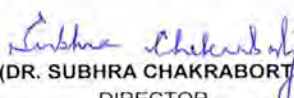
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	12,17,810		
Equipment			
Grant - In - Aid for			
i) Equipment	1,50,000		
ii) Manpower	6,99,360	6,99,360	
iii) Consumable/ Travel/Contingencies	4,01,758	5,30,000	
(iv) SSR	-	20,000	
v) Overhead Charges	98,882	98,882	
Interest Earned	7,322	8,165	
TOTAL		25,75,132	13,56,407

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	1,45,257		
ii) Manpower	6,59,880	37,715	
iii) Consumable/ Travel/Contingencies	4,90,205	2,000	
(iv) SSR			
v) Overhead Charges	98,882	98,882	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	11,76,165	12,17,810	
Equipment	4,743		
TOTAL		25,75,132	13,56,407


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DST PROJECT

Multi-omics study on the factors affecting the shelf-life of model nutriceal, foxtail millet (*Setaria italica* L.)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

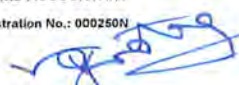
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	15,02,734	-	
<u>Grant - In - Aid for</u>			
i) Manpower	-	6,99,360	
ii) Consumable/ Travel/Contingencies	4,50,000	8,00,000	
iii) Overhead Charges	1,00,000	1,19,640	
<u>Interest Earned</u>	20,330	3,374	
TOTAL		20,73,064	16,22,374

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	3,78,820	-	
ii) Consumable/ Travel/Contingencies	7,40,360	-	
iii) Overhead Charges	1,00,000	1,19,640	
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	8,53,884	15,02,734	
TOTAL		20,73,064	16,22,374


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DST(SERB NPDF) PROJECT

Understanding mitogen-activated protein kinase mediated regulation of PIN1a auxin transporter for
manipulating tiller number in rice (*Oryza sativa*)

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	9,55,614		
Grant- In- Aid for			
i) Manpower	-	8,18,400	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	1,00,000	
Interest Earned	99	3,214	
TOTAL		9,55,713	11,21,614

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	7,52,400	66,000	
ii) Consumable/Contingency/Travel	1,99,556	-	
iii) Overhead Charges	-	1,00,000	
CLOSING BALANCE			
With Bank in Saving A/c	3,757	9,55,614	
TOTAL		9,55,713	11,21,614


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N

(VIPUL GIROTRA)
PARTNER
Membership No.084312



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

DST(SERB NPDF) PROJECT

Unraveling the molecular crosstalk during tripartite symbiotic interaction between chickpea, Rhizobium and Fusarium for effective enhancement of nodulation under concurrent biotic stress

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE With Bank in Saving A/c	9,28,968	-	
Grant- In- Aid for			
i) Manpower	-	8,18,400	
ii) Consumable/Contingency/Travel	-	2,00,000	
iii) Overhead Charges	-	1,00,000	
Interest Earned	9,201	3,125	
TOTAL	9,38,169		11,21,525

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	2,77,200	92,557	
ii) Consumable/Contingency/Travel	1,97,375	-	
iii) Overhead Charges	-	1,00,000	
Refund to Agency Recurring	4,63,594		
CLOSING BALANCE With Bank in Saving A/c	-	9,28,968	
TOTAL	9,38,169		11,21,525

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
DIRECTOR

(VIPUL GIROTRA)
PARTNER

Membership No.084312

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N



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

DST(SERB NPDF) PROJECT

Financial Sanction under Teacher Associateship for Research Excellence (TARE) to Dr. Punjab Singh Malik

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
OPENING BALANCE				
With Bank in Saving A/c	67,688			
Grant- In- Aid for				
i) Manpower	-		60,000	
ii) Consumable/Contingency/Travel	-		2,50,000	
iii) Overhead Charges	-		25,000	
Interest Earned	2,100		1,780	
TOTAL		69,788		3,36,780

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Manpower	-		-	
ii) Consumable/Contingency/Travel	3,417		2,44,092	
iii) Overhead Charges	-		25,000	
CLOSING BALANCE				
With Bank in Saving A/c	66,371		67,688	
TOTAL		69,788		3,36,780

(RAKESH MOHAN)
FINANCE OFFICER

(SANDEEP DATTA)
COA

(DR. SUBHRA CHAKRABORTY)
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(VIPUL GIROTRA)
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For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N



NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST(SERB NPDF) PROJECT

Understanding genetic and molecular intricacies of high ambient temprature-regulated leaf size

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	12,38,900		
Equipment	3,00,000		
Grant- In- Aid for			
i) Equipment	-	3,00,000	
ii) Manpower	-	5,20,800	
iii) Consumable/Contingencies/Travel	-	6,00,000	
iv) SSR	-	20,000	
v) Overheads	-	98,100	
Interest Earned	9,943		
TOTAL		15,48,843	15,38,900

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	2,97,441	-	
ii) Manpower	4,34,000	-	
iii) Consumable/Contingencies/Travel	4,39,209	-	
iv) SSR	-	-	
v) Overheads	98,000	-	
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	2,77,634	12,38,900	
Equipment	2,559	3,00,000	
		15,48,843	15,38,900


(RAKESH MOHAN)
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(SANDEEP DATTA)
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(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
(Formerly National Centre for Plant Genome Research)
NEW DELHI

DST PROJECT
INSPIRE Fellow Award- Dr. Hasthi Ram

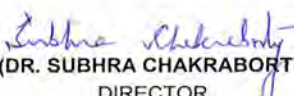
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

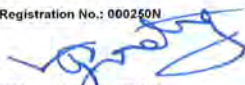
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c	9,47,849		-
Grant- In- Aid for			
i) Manpower	-		6,23,700
ii) Consumable/Contingency/ Travel/Equipment	2,52,856		3,64,212
iii) Overhead Charges	35,000		26,250
Interest earned	10,814		6,355
TOTAL		12,46,519	10,20,517

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Manpower	-		-
ii) Consumable/Contingency/ Travel	6,20,889		46,418
iii) Overhead Charges	35,000		26,250
Refund of Interest Earned	6,355		
CLOSING BALANCE			
With Bank in Saving A/c	5,84,275		9,47,849
TOTAL		12,46,519	10,20,517


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST(SERB NPDF) 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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
<u>OPENING BALANCE</u>				
With Bank in Saving A/c				
Recurring	-			
Equipment	-			
<u>Grant- In- Aid for</u>				
i) Equipment	8,00,000			
ii) Manpower	4,81,120			
iii) Consumable/Contingencies/Travel	7,00,000			
iv) SSR	10,000			
v) Overheads	1,16,080			
<u>Interest Earned</u>	8,960			
TOTAL		21,16,160		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	-		-	
ii) Manpower	-		-	
iii) Consumable/Contingencies/Travel	-		-	
iv) SSR	-		-	
v) Overheads	1,16,080		-	
<u>CLOSING BALANCE</u>				
With Bank in Saving A/c				
Recurring	12,00,080		-	
Equipment	8,00,000		-	
		21,16,160		-


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST(SERB NPDF) PROJECT

**Construction and Functional Testing of Genome-wide CRISPR-Cas9 Library for Genome-editing of
Seed Specific Genes in Indica Rice**

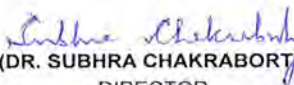
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

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	6,30,000			
ii) Manpower	4,61,280			
iii) Consumable/Contingencies/Travel	6,50,220			
iv) SSR	10,000			
v) Overheads	1,14,500			
Interest Earned	7,112		-	
TOTAL		18,73,112		-

PAYMENTS		AMOUNT-IN-RUPEES		
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
i) Equipment	1,71,102		-	
ii) Manpower	-		-	
iii) Consumable/Contingencies/Travel	-		-	
iv) SSR	-		-	
v) Overheads	1,14,500		-	
CLOSING BALANCE				
With Bank in Saving A/c				
Recurring	11,28,612		-	
Equipment	4,58,898		-	
		18,73,112		-


(RAKESH MOHAN)
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NEW DELHI

DST PROJECT
J.C.Bose Fellowship- Dr.Ashverya Laxmi

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c			
Recurring	-		
Grant - In - Aid for			
i) Fellowship	3,00,000		
ii) Consumable/ Travel/Contingencies /Equipment	15,00,000		
iii)Overheads	1,00,000		
Interest Earned	2,945		
TOTAL		19,02,945	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	1,39,516		
ii) Consumable/ Travel/Contingencies /Equipment	13,98,665		
iii)Overheads	1,00,000		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	2,64,764		
TOTAL		19,02,945	-


(RAKESH MOHAN)
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(SANDEEP DATTA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

J.C.Bose Fellowship- Dr. Alok Krishna Sinha

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	-		
Grant - In - Aid for			
i) Fellowship	3,00,000		
ii) Consumable/ Travel/Contingencies /Equipment	15,00,000		
iii)Overheads	1,00,000		
Interest Earned	1,073		
TOTAL	19,01,073		-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Fellowship	2,98,333		
ii) Consumable/ Travel/Contingencies /Equipment	14,61,923		
iii)Overheads	1,00,000		
CLOSING BALANCE			
With Bank in Saving A/c Recurring	40,817		
TOTAL	19,01,073		-


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST PROJECT

Cytokinin regulation of shade avoidance response in plants

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
<u>OPENING BALANCE</u>			
With Bank in Saving A/c			
Recurring	-		
<u>Grant - In - Aid for</u>			
i) Consumable/			
Travel/Contingencies	10,00,000		
/Equipment			
ii)Overheads	80,000		
<u>Interest Earned</u>	328		
TOTAL	10,80,328		-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Consumable/			
Travel/Contingencies	9,81,775		
/Equipment			
ii)Overheads	80,000		
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c			
Recurring	18,553		
TOTAL	10,80,328		-


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
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(VIPUL GIROTRA)
PARTNER
Membership No.084312



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

DST SERB PROJECT

Ramanujan Review meeting of Sciences fellows under Ramanujan Fellowship Scheme

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u> With Bank in Saving A/c	2,86,001		2,86,001
<u>Grant - In - Aid for</u> i) TA/DA to non-official members of Expert Committee ii) Honorarium to the members of the Expert Committee iii) Accomodation for 21 Experts and 40 Ramanujan fellows Interest Earned	7,009		
TOTAL		2,93,010	2,86,001

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) TA/DA to non-official members of Expert Committee ii) Honorarium to the members of the Expert Committee iii) Accomodation for 21 Experts and 40 Ramanujan fellows Refund to Agency	2,795 2,90,215		
<u>CLOSING BALANCE</u> With Bank in Saving A/c	-		2,86,001
TOTAL		2,93,010	2,86,001



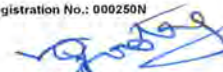
(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

DST SERB PROJECT
1st meeting of the PAC on 'Interdisciplinary Biological Sciences'

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE With Bank in Saving A/c	4,43,383	4,43,383	
i) TA/DA & Honorarium to Expert Committee members			
ii) Lodging/Boarding, Local transport, Meeting materials, Food, Working & other misc. expenditure-Refund against expenditure	47,790		
Interest Earned	10,974		
TOTAL	5,02,147		4,43,383

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) TA/DA & Honorarium to Expert Committee members			
ii) Lodging/Boarding, Local transport, Meeting materials, Food, Working & other misc. expenditure			
Refund to Agency	5,02,147		
CLOSING BALANCE With Bank in Saving A/c	-	4,43,383	
TOTAL	5,02,147		4,43,383


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

Funding for the national Frontiers of Science (NatFos) series Brainstorming session by Indian National Young Academy of Science(INYAS)

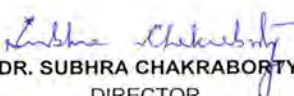
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c	39,642		39,642
Grant - In - Aid for			
i) Resorts Package, Air Travel reimbursement, memento/Certificate/Banner/Registration Kits & misc. contingency	-		-
Interest Earned	535		
TOTAL		40,177	39,642

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Resorts Package, Air Travel reimbursement, memento/Certificate/Banner/Registration Kits & misc. contingency	-		-
Refund to Agency	40,177		
CLOSING BALANCE			
With Bank in Saving A/c	-		39,642
TOTAL		40,177	39,642


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

INSA Project
INSA Elucidation of Metabolic Channelling at the Entry point into the phenylpropanoid pathway in Musa species : functional characterizatrion of phenyl alanine ammonia lyase gene family

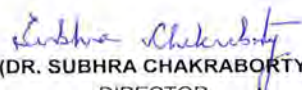
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c	1,43,369		2,32,521
Grant - In - Aid for			
i) Manpower			
ii) Travel	-		4,82,828
iii) Contingencies			
iv) Overheads	-		-
Interest Earned	1,074		2,726
TOTAL		1,44,443	7,18,075

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
i) Manpower			
ii) Travel	99,960		5,74,706
iii) Contingencies			
iv) Overheads	-		-
Refund to Agency	44,483		
Recurring			
CLOSING BALANCE			
With Bank in Saving A/c	-		1,43,369
TOTAL		1,44,443	7,18,075


(RAKESH MOHAN)
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ICAR Project

ICAR-NASF Identification of host factors responsible for infection and development of nano particle based dsRNA delivery system for imparting resistance to begomoviruses

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	62,851	2,42,660	
Grant - In - Aid for			
i) Non-recurring	-	-	
ii) Manpower	5,62,756	6,06,279	
iii) Consumables	(3,818)	2,93,735	
iv) Travel	(10,509)	56,990	
v) Contingencies	-	(22,815)	
vi) Overheads	6,377	46,329	
Interest Earned	142	1,652	
TOTAL	6,17,799	12,24,830	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Non-recurring	-	-	
ii) Manpower	6,02,640	7,63,636	
iii) Consumables	-	2,96,182	
iv) Travel	-	39,491	
v) Contingencies	-	16,341	
vi) Overheads	9,748	46,329	
Refund to Agency			
Recurring	5,411		
CLOSING BALANCE			
With Bank in Saving A/c	-	62,851	
TOTAL	6,17,799	12,24,830	


(RAKESH MOHAN)
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ICAR Project

**ICAR-NASF Development of sustainable management tools for the invasive pest, Fall Armyworm
Spodoptera frugiperda (J.E. Smith) in maize**

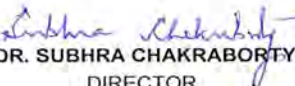
RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c	63,549	2,37,561	
Grant - In - Aid for			
i) Manpower	4,63,760	4,45,160	
ii) Consumables	5,80,719	5,84,799	
iii) Travel/Workshop	5,000	25,000	
iv) Contingencies	-	-	
v) Overheads	52,940	62,824	
Interest Earned	1,716	628	
TOTAL	11,67,684	13,55,972	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Manpower	2,30,640	4,48,880	
ii) Consumables	2,97,710	7,80,719	
iii) Travel	-	-	
iv) Contingencies	-	-	
v) Overheads	52,940	62,824	
CLOSING BALANCE			
With Bank in Saving A/c	5,86,394	63,549	
TOTAL	11,67,684	13,55,972	


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(VIPUL GIROTRA)
PARTNER
Membership No.084312



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 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
With Bank in Saving A/c Recurring	5,96,947	-	
Grant - In - Aid for Research Grant	5,34,689	7,45,364	
Interest Earned	2,777	26	
TOTAL	11,34,413		7,45,390

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
Research Expenditure	4,95,253	1,48,443	
CLOSING BALANCE			
With Bank in Saving A/c Recurring	6,39,160	5,96,947	
TOTAL	11,34,413		7,45,390

(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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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 2021 TO 31st MARCH 2022

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	1,00,000		
ii) Consumables	12,70,000		
iii) Manpower	2,30,000		
iv) Travel	2,50,000		
v) Contingency	3,50,000		
vi) Field Trail/Front Line Demonstrations	1,00,000	-	
vii) Awareness Program	1,00,000		
viii) Overhead	1,00,000		
Interest Earned	33,057	-	
TOTAL		25,33,057	-

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
i) Equipment	-		
ii) Consumables	2,62,418		
iii) Manpower	-		
iv) Travel	34,764		
v) Contingency	3,947		
vi) Field Trail/Front Line Demonstrations	-	-	
vii) Awareness Program	-		
viii) Overhead	1,00,000		
CLOSING BALANCE			
With Bank in Saving A/c			
Recurring	20,31,928	-	
Equipment	1,00,000		
TOTAL		25,33,057	-


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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DST PROJECT
INSPIRE Fellowship

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	10,10,717		4,56,943
Amt. received from DST for Research Fellowships & Associateships	15,36,505		17,16,697
<u>Interest Earned</u>	5,598		2,921
TOTAL		25,52,820	21,76,561

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
Amount paid for Research Fellowships & Associateships	11,35,427		11,65,844
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	14,17,393		10,10,717
TOTAL		25,52,820	21,76,561



(RAKESH MOHAN)
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Firm Registration No.: 000250N

(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

FELLOWSHIP GRANT CSIR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	9,24,396		3,86,573
Amt. received from CSIR for Research Fellowships & Associateships	1,53,637		11,74,700
TOTAL		10,78,033	15,61,273

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
Amount paid for Research Fellowships & Associateships	4,72,782		6,36,848
<u>Refund to Agency</u>	43,894		29
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	5,61,357		9,24,396
TOTAL		10,78,033	15,61,273

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
FINANCE OFFICER


(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
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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 2021 TO 31st MARCH 2022

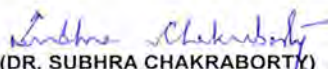
RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
OPENING BALANCE			
With Bank in Saving A/c	15,50,947		16,52,187
Amt. received from DBT for Research Fellowships & Associateships	64,37,237		1,11,55,560
TOTAL		79,88,184	1,28,07,747

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
Amount paid for Research Fellowships & Associateships	65,64,529		1,09,60,527
Refund to Funding Agency	96,824		2,96,273
CLOSING BALANCE			
With Bank in Saving A/c	13,26,831		15,50,947
TOTAL		79,88,184	1,28,07,747

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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(SANDEEP DATTA)
COA


(DR. SUBHRA CHAKRABORTY)
DIRECTOR


(VIPUL GIROTRA)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

FELLOWSHIP GRANT ICMR

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

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 V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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(SANDEEP DATTA)
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(DR. SUBHRA CHAKRABORTY)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

FELLOWSHIP GRANT AIRTF

RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD FROM 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
<u>OPENING BALANCE</u>			
With Bank in Saving A/c	5,000		15,000
Amt. received from ICMR for Research Fellowships & Associateships	-		5,000
TOTAL		5,000	20,000

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR		PREVIOUS YEAR
Amount paid for Research Fellowships & Associateships	-		-
<u>Refund to Agency</u>	-		15,000
<u>CLOSING BALANCE</u>			
With Bank in Saving A/c	5,000		5,000
TOTAL		5,000	20,000

For V.K.DHINGRA & Co.
CHARTERED ACCOUNTANT
Firm Registration No.: 000250N


(RAKESH MOHAN)
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NATIONAL INSTITUTE OF PLANT GENOME RESEARCH
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NEW DELHI

RECEIPT AND PAYMENT ACCOUNT OF NIPGR EMPLOYEES CONTRIBUTORY PROVIDENT FUND ACCOUNT

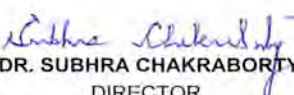
FOR THE PERIOD 1st APRIL 2021 TO 31st MARCH 2022

RECEIPTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
OPENING BALANCE			
In Savings Account	6,00,356	62,24,583	
In Fixed Deposit	8,56,25,840	6,75,43,322	
SUBSCRIPTIONS			
(i) Amount of Regular Subscription	65,91,800	68,91,031	
(ii) Refund of advances received from Subscribers	-	2,69,800	
Amount received from NIPGR Core grant to meet Institute's liability towards Contribution & Deficit of Interest	39,69,404	5,85,131	
INTEREST EARNED			
Savings Account/ Investments	35,91,877	68,12,329	
Other Receipts	-	-	
TOTAL	10,03,79,277	8,83,26,196	

PAYMENTS		AMOUNT-IN-RUPEES	
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR	
Advances paid to Subscribers	-	-	
Part final withdrawal	26,47,910	21,00,000	
Other Charges	265	-	
Full & Final payment of Subscribers	-	-	
CLOSING BALANCE			
In Savings Account	58,849	6,00,356	
In Fixed Deposit	9,76,72,253	8,56,25,840	
TOTAL	10,03,79,277	8,83,26,196	


(RAKESH MOHAN)
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(SANDEEP DATTA)
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(VIPUL GIROTRA)
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COMMENTS ON AUDITOR'S REPORT ON ACCOUNTS FOR THE YEAR ENDED MARCH 31,2022

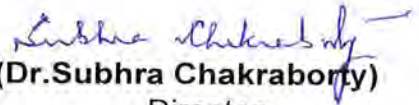
No comment in the Auditor's report has been included. The statement made in the report are informative items. Keeping in view of NIL observation on the Annual Accounts for the Financial Year 2021-22, the comment may be considered as Nil for the purpose of record.



(Rakesh Mohan)
Finance Officer



(Sandeep Datta)
Controller of Administration



(Dr. Subhra Chakraborty)
Director



National Institute of Plant Genome Research

Aruna Asaf Ali Marg, JNU Campus, P.O. Box 10531, New Delhi

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