

**Scientist requirement: RCB-NABI PhD Student of 2026-January (Winter semester) Batch (10<sup>th</sup> Batch)**

| S. N. | Scientist Name                           | Requirement | Fund                | Tentative research project  |
|-------|--|-------------|---------------------|---|
| 1.    | Prof. Ashwani Pareek, Executive Director | 2           | Own                 | Crop engineering for food and nutritional security  |
| 2.    | Dr. Saravananurugan S, Sci-F             | 4           | Own                 | High-Value Product Synthesis via Chemoenzymatic Bioprocessing   |
| 3.    | Dr. Ajay K Pandey, Sci-F                 | 1           | Own                 | Exploring iron transceptors from hexaploid wheat to modulate the iron mobilization  |
| 4.    | Dr. Shrikant S Mantri, Sci-F             | 2           | Own                 | 1. Discovering Health-Boosting Insights: Multi-Omics Big Data Mining for Novel Patterns and Pathways<br>2. Deep learning neural network model development for biological predictions and data mining.   |
| 5.    | Dr. Siddharth Tiwari, Sci-F              | 1           | Own                 | Development and deployment of genome editing tools for precise trait improvement in plants  |
| 6.    | Dr. Monika Garg, Sci-F                   | 3           | Own                 | 1. Expression profiling and functional validation of candidate genes associated with fructan content in wheat through protein interaction and overexpression studies<br>2. Evaluation of celiac disease eliciting epitopes in genome edited wheat and their effect on functional quality<br>3. Functional evaluation and validation of nutrients in black <i>Triticum sphaerococcum</i> wheat |
| 7.    | Dr. Kanthi Kiran Kondepudi, Sci-F        | 2           | 1 Own + 1 NABI-Core | 1. Molecular and Cellular Mechanisms of Commensal Gut Bacteria in Diet-Induced Obesity<br>2. Millets for a Healthy Gut and Metabolism: Nutritional Implications   |
| 8.    | Dr. Mahendra Bishnoi, Sci-F              | 1           | Own                 | Biosensor technology, chemistry, bio-marker identification  |
| 9.    | Dr. Nitin Kumar Singhal, Sci-F           | 2           | Own                 | 1. Cross-Kingdom Regulatory Potential of Ginger-Derived Exosomal microRNAs on Mammalian Target Genes<br>2. NextWave Aptasensors: Redefining Bacterial Detection for Smart Healthcare  |
| 10.   | Dr. Koushik Mazumder, Sci-F              | 1           | Own                 | Edible coating and understanding the molecular basis of delayed fruit ripening.   |
| 11.   | Dr. Rupam K Bhunia, Sci-E                | 1           | Own                 | Improving plant lipid nutritional quality using genome editing  |
| 12.   | Dr. Sivasubramanian R, Sci-D             | 1           | Own                 | Nanomaterials-based strategies for crop improvement   |
| 13.   | Dr. Charanpreet Kaur, Sci-D              | 1           | 1 Own               | Exploring the role of prion-like proteins in plant stress and memory responses.<br>Exploring the role of fungal prion-like proteins in plant-fungi interactions   |

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|-----|--------------------------------------|----|---------------------------------|---|
| 14. | Dr. Rajeev Nayan Bahuguna            | 1  | Own                             | Deciphering genetic control of carbon dioxide responsiveness in direct-seeded rice to improve yield and grain nutrients under warmer climate.   |
| 15. | Dr. Panneerselvam K, Sci-D           | 1  | Own                             | Deciphering the biosynthetic pathway of phenylphenalenone-type phytoalexins in banana ( <i>Musa spp.</i> )  |
| 16. | Dr. Nimaichand Salam, Sci-D          | 2  | Own                             | 1. Plant-Microbe Interactions<br>2. Biosynthetic gene clusters from soil actinomycetes  |
| 17. | Dr. Meena Krishania Choudhary, Sci-C | 1  | Own                             | Microbial Cell Factory Platforms for Upcycling Agricultural Biomass into Value-Added Products   |
| 18. | Dr. Prafull Salvi, Sci-C             | 1  | NABI Core                       | Exploring the Regulatory Roles of Intrinsically Disordered Regions in Seed-Associated Transcription Factors of Rice   |
| 19. | Dr. Vanish Kumar, Sci-C              | 2  | Own                             | 1. Development of electrospun nanofibers-based sensing platforms for food contaminants detection<br>2. Development and exploration of Kombucha-based value-added products   |
| 20. | Dr. Shivraj Nile, Sci-C              | 2  | Own                             | 1. Microbiome-targeted functional food formulation from plant bio-actives for obesity–metabolic syndrome via GLP-1 and bile acid–FXR/TGR5 modulation<br>2. Multi-omics guided modulation of Wnt/β-Catenin, PI3K/Akt/mTOR, and microbial SCFA signaling by fruit-derived exosome-like nanoparticles in colorectal cancer<br>3. Integrative molecular bio-prospecting and callus-based bio-manufacturing of indigenous plant pigments for next-generation functional foods and nutraceuticals |
| 21. | Dr. Sandeep Kumar, Sci-C             | 3  | 2 Own + 1 NABI-Core             | 1. Precision Fermentation Platforms for Clean-Label Food Proteins<br>2. Zero-Waste Fermentation Pipelines for Circular Bioactive and Protein Recovery<br>3. Microbial Cell Factories for Clean and Sustainable Food Biomanufacturing  |
|     | <b>Total</b>                         | 35 | 32 Own fellowship + 3 NABI-Core |   |