Dr. Sandip Das
Dept of Botany

DBT-429

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दिल्ली विश्वविद्यालय
UNIVERSITY OF DELHI

फाईल संख्या Finance III (i)

File No. .....

Tenure — 12/01/2022 to 11/01/2024
~~30/12/2021 to 29/12/2024~~
~~30/12/2021 to 01/1/2025~~

PI - Dr. Sandip Das

Title "Characterization ... improve-ment

विभाग _____

Department FA - DBS

विषय Tenure - 3 yrs.

Subject Cost - ₹ 8140464/-
Rs. 66,57,360/-

अनुभाग _____

Section _____

No. BT/PR32170/AGIII/103/1129/2019
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 12.01.2022

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules ,1978 , for the implementation of the project entitled **"Characterisation of MIR395 and MIR399 regulated by bidirectional promoter from *Brassica juncea* to understand Sulphate and Phosphate uptake, and designing novel promoters for crop improvement"** for a period of 3 Year 0 Month at a total cost of Rs. **6657360** (Rupees Sixty Six Lakhs Fifty Seven Thousand Three Hundred and Sixty Only) on the terms and conditions detailed here under:-

2 **The Project :**

2.1 **Title :** **Characterisation of MIR395 and MIR399 regulated by bidirectional promoter from *Brassica juncea* to understand Sulphate and Phosphate uptake, and designing novel promoters for crop improvement**

2.2 **Details of the Investigator:** Dr. Sandip Das, University of Delhi, North Campus, Delhi

Co-PI: Dr. Yashwanti Mudgil, University of Delhi, North Campus, Delhi

2.3 Objectives:

a. To perform functional analysis of MIR395, and understand transcriptional regulation of MIR395A-B and MIR395E-F from *Brassica juncea* involved in Sulphate uptake.
b. To perform functional analysis of MIR399, and understand transcriptional regulation of MIR399D-E from *Brassica juncea* involved in Phosphate uptake.
c. To design novel chimeric promoters based on bidirectional promoters of MIR395A-B, MIR395E–F and MIR399D-E.

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order. Objective wise Activities & Timelines:

Activities	Start Month	End Month	Deliverables
Objective 1: To perform functional analysis of MIR395, and understand transcriptional regulation of MIR395A-B and MIR395E-F from *Brassica juncea* involved in Sulphate uptake	1	36	--
1a. Analysis of plant response to nutrient deficiencies: Phenotypic and molecular response to sulphate stress	1	24	Understanding phenotypic and molecular response to sulphate stress on root, and plant growth
1b. Functional analysis of MIR395 using miRNA MIMICs to generate loss-offunction mutants	13	36	Generation of loss-offunction MIR395 mutants leading to a better understanding of root development and architecture as an interplay of MIR395 and Sulphate
1c. Transcriptional regulation of MIR395 via bi-directional promoter and Identification of functional regions in a bidirectional promoter responsible for Sulphur uptake	7	36	Generation of information on transcriptional regulation of MIR395, including role of hormones and nutritional stress
Objective 2. To perform functional analysis of MIR399, and understand transcriptional regulation of MIR399D-E from *Brassica juncea* involved in Phosphate uptake	1	36	--
2a: Analysis of plant response to	1	24	Understanding phenotypic and molecular

डॉ. संजय कालिया / Dr. Sanjay Kalia
वैज्ञानिक ई / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्यो. मंत्रालय / Min. of Science & Technology
भारत सरकार, दिल्ली / Govt. of India, New Delhi

nutrient deficiencies: Phenotypic and molecular response to phosphate stress			response to phosphate stress on root, and plant growth
2b: Functional analysis of MIR399 using miRNA MIMICs to generate loss-offunction mutants	13	36	Generation of loss-offunction MIR399 mutants leading to a better understanding of root development and architecture as an interplay of MIR399 and Phosphate
2c: Transcriptional regulation of MIR399 through bidirectional promoters and Identification of functional regions in a bidirectional promoter responsible for Phosphate uptake	7	36	Generation of infornation on transcriptional regulation of MIR399, including role of hormones and nutritional stress
Objective 3. To design novel chimeric promoters based on bidirectional promoters of MIR395AB, MIR395E–F and MIR399D-E	13	36	Characterization of bidirectional promoters will allow designing and construction of novel chimeric bidirectional promoters that can be utilized for simultaneous expression of two flanking transgenes in plant transformation vectors

2.5 Project Cost:

The total cost of the project is Rs. 6657360/-(Rupees Sixty Six Lakhs Fifty Seven Thousand Three Hundred and Sixty Only) as per details given below:

Budget Head	Year I	Year II	Year III	Total(Rs.)
Manpower	1169280.00	1169280.00	1228800.00	**3567360.00**
Overhead	50000.00	50000.00	50000.00	**150000.00**
Travel	30000.00	30000.00	30000.00	**90000.00**
Consumables	900000.00	900000.00	900000.00	**2700000.00**
Contingency	50000.00	50000.00	50000.00	**150000.00**
Total (Rs.)	**2199280.00**	**2199280.00**	**2258800.00**	**6657360.00**

2.6 Manpower:

The details of the manpower sanctioned for the implementation of the project at **Annexure-I**

3. Head of Account:

The **Recurring** expenditure involved is debitable to:

Demand No. 89	**Department of Biotechnology**
3425	Other Scientific Research 2021-2022
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance to Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. Terms & Conditions:

4.1 A. The approval of the project is subject to condition that further release will be made only after appraisal and approval of the DBT umbrella scheme on 'Biotechnology Research & Development' by the Ministry of Finance for continuation during 15th Finance Commission.

B. In case the whole or a part of the amount of the Grants-in-Aid is being refunded, an interest rate of ten percent