



NATIONAL AGRICULTURAL SCIENCE FUND
(Indian Council of Agricultural Research)
Room No. 707, KAB -I, Pusa, New Delhi – 110012

F. No. NASF/ABP-7021/2018-19/255

Dated: 31.07.2018

To,

The Director,
ICAR-National Institute of Biotic Stress Management,
Raipur-493225

Subject: Sanction letter for the Research project entitled, **"Identification of host factors responsible for infection and development of nano-particle based dsRNA delivery system for imparting resistance to begomoviruses"** under the National Agricultural Science Fund (NASF)

Sir,

The Empowered Committee (EC) of the NASF, considered the proposal on **"Identification of host factors responsible for infection and development of nano-particle based dsRNA delivery system for imparting resistance to begomoviruses"** in its thirty fourth meeting held on 5th July, 2018 and approved the proposal for implementation under the NASF. The total cost of this project is ₹ 275.10470 Lakh (Rupees two crore seventy five lakh ten thousand four hundred and seventy only) for a period of three years (August 2018 to July 2021). The financial sanction of the competent authority for the project is now being accorded for the period from 1st August 2018 to 31st March 2020. The sanction for the period from 1st April 2020 till the end of the project i.e. 31st July 2021 will be conveyed later. The release of fund will be through PFMS/FMS-MIS and the funded centre need to comply accordingly.

1. Name of the Lead Centre and address

ICAR-National Institute of Biotic Stress Management, Raipur-493225

Name & Designation of the Principal Investigator

Dr. P.N. Sivalingam, Senior Scientist, Agricultural Biotechnology, ICAR-NIBSM, Raipur

2. Names of Cooperating Centre and addresses

- i. National Institute of Plant Genomic Research, New Delhi-110067
- ii. ICAR-Indian Agricultural Research Institute, New Delhi-110012
- iii. Indian Institute of Technology Delhi-110016

Name & Designation of the Cooperating Centre Principal Investigators

- i. Dr. Senthil-Kumar, Muthappa Staff Scientist-IV, NIPGR, New Delhi
- ii. Dr. Bikash Mandal, Principal Scientist, ICAR-IARI, New Delhi
- iii. Dr. Neetu Singh, Assistant Professor, IIT, Delhi

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

Name of Lead Institution:

ICAR-National Institute of Biotic Stress Management, Raipur

Name (s) of Cooperating institution(s):

- (i) National Institute of Plant Genomic Research, New Delhi
- (ii) ICAR- Indian Agricultural Research Institute, New Delhi
- (iii) Indian Institute of Technology Delhi, New Delhi



Funded by
National Agricultural Science Fund (NASF)
Indian Council of Agricultural Research, New Delhi

	Kharbikar	Biotechnology)	Bioinformatics
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5.2 Name(s) and designation(s) of the Cooperating Centre Principal Investigator (s) CCPI i.e., the Lead Scientist (s) from the Cooperating Institution(s) and CIs from each Cooperating Centres

Status	Name	Designation	Specialization	Page No.
CCPI-1	Dr. Senthil-Kumar Muthappa	Staff Scientist-IV, NIPGR, New Delhi	Non-host resistance, Stress Biology	24
CIs:	Dr. Senjuti Sinharoy	Staff Scientist-III, NIPGR, New Delhi	Plant-microbe interaction	-
CCPI-2	Dr. Bikash Mandal	Principal Scientist (Plant Pathology), ICAR-IARI, New Delhi	Plant Virology	27
CIs:	Dr. Anirban Roy	Principal Scientist (Plant Pathology), ICAR-IARI, New Delhi	Plant Virology	-
	Dr. Amalendu Ghosh	Scientist (Entomology), ICAR-IARI, New Delhi	Agricultural Entomology	-
CCPI-3	Dr. Neetu Singh	Assistant Professor, IIT-D, New Delhi	Biomedical Engineering	30

(Please give a brief CV of the PI and each CCPI and the area of specialization of each CIs as Annexure 2 in the prescribed format: *please mention the page number of the first page of the CV against each name*)

6. Objectives of the project (not more than five)

1. To understand the host factors responsible for infection and replication in the identified hosts and non-hosts for begomoviruses
2. To develop efficient delivery system of dsRNA conjugated with nano materials
3. To study efficiency of ds RNA conjugated with nanoparticles in vector transmission and begomovirus infection.

7. How the achievements of these objectives will add to scientific advancement and/or technological advancement in the strategic area(s) under which the project is being proposed? (Not more than 1 page)

The advancement in this project is mainly aiming to open up an alternative approach for managing viral diseases caused by begomoviruses in crop plants through understanding non-host resistance mechanisms.

Non-host species to *Mungbean yellow mosaic India virus* (MYMIV) and *Tomato leaf curl New Delhi virus* (ToLCNDV) are tomato and mungbean, respectively. These identified non-