




## DEBASIS MITRA

**Doctoral Student (Microbiology) & Researcher (Plant-Microbes Interaction)**

Department of Microbiology, Raiganj University,  
College Para, Raiganj, West Bengal - 733134 India

**Editor:** J. Plant Sci. & Biology Research Journal

**Review Editor:** Acta Scientific Agriculture & Acta Scientific Microbiology

 debasismitra3@gmail.com  +91 - 6370605142  +91-9002177539



### Address for correspondence:

C/o - Dr. P. Panneerselvam, Principal Scientist, Microbiology Laboratory, Crop Production Division, ICAR - National Rice Research Institute, Cuttack - 753 006 Odisha, India

### Permanent address:

S/o - Ranjit Kumar Mitra, Vill. Aviaurjuni, P.O. Jhentla, P.S. Keshpur, Dist. Paschim Medinipur Pin. 721 150 West Bengal, India. (Home mobile no: +91-9732971143)

Father's Name: Ranjit Kumar Mitra      Date of Birth: 23/04/1993

Mother's Name: Mita Mitra      Known Language: Bengali, Hindi and English.

### Research Web Links:

 <https://scholar.google.co.in/citations?user=Nzg2wMMAAAAJ&hl=en>

 <https://www.scopus.com/authid/detail.uri?authorId=57211354606>


 <https://publons.com/researcher/AAP-1925-2020/>

 [https://www.researchgate.net/profile/Debasis\\_Mitra7](https://www.researchgate.net/profile/Debasis_Mitra7)

 <https://www.mendeley.com/profiles/debasis-mitra3>

 <https://loop.frontiersin.org/people/535252/overview>

 <https://raiganjcollege.academia.edu/DebasisMitra>

 <https://orcid.org/0000-0003-0525-8812>

### Google Scholar Citations:

Citations: 47    h-index: 3    i10-index: 1

### Publons Verified Reviews:

Verified Reviews: 14

## EDUCATIONAL QUALIFICATION

Class/Degree	Year	College / University	Subjects	CGPA / Grade
Doctor of Philosophy ( <b>Ph.D.</b> ) Microbiology	Enroll– Dec, 2019	Department of Microbiology, Raiganj University, Raiganj, West Bengal, India	Microbiology	(pursuing)
Master of Science ( <b>M.Sc.</b> ) Biotechnology	2017	Graphic Era (Deemed to be University), Uttarakhand, India	Biotechnology	A+ (CGPA: 8.28/10)
Bachelor of Science ( <b>B.Sc.</b> ) Biotechnology	2014	Vidyasagar University, OIST, West Bengal, India	Biotechnology	B+
Higher Secondary Degree	2011	WBCHS, West Bengal	Bengali, English, Biological Science, Chemistry, Physics	B+
Secondary Degree	2009	WBBSE, West Bengal	Bengali, English, Mathematics, Physical Science, Life Science, History, Geography	A

## RESEARCH EXPERIENCE

Name of Lab / Institution	Designation	Period of time		Total Duration (Y,M,D)	Supervisor(s)	Research Area
		From	To			
ICAR- Indian Institute of Horticultural Research, Bengaluru	Dissertation Trainee	Jan. 2017	June, 2017	6 Months	Prof. (Dr.) A. N. Ganeshamurthy <b>Ph.D, ARS, FNAAS, FISPRD, FCHAI</b> <i>Principal Scientist and Head,</i> SSAC, ICAR-IIHR PI, Bioversity International Project on Ecosystem Services.	Plant Microbes Interaction
Graphic Era (Deemed to be University), Dehradun	Student Researcher  (M.Sc.)	Jan, 2016	Dec, 2016  June, 2017	1 Year 6 Months	Prof. (Dr.) L. M. S. Palni <b>FNASc, FAAS, FNA, FISPM, PDF (ANU, Canberra)</b> <i>Vice Chancellor, Graphic Era</i> (Deemed to be University), Uttarakhand	Plant Microbes Interaction

Oriental Institute of Science and Technology, VIH Campus, West Bengal India	Student Researcher (B.Sc.)	Mar, 2012	June, 2014	2 Year 3 Months	Dr. A. Mukhopadhaya <i>Asst. Professor</i> Oriental Institute of Science and Technology, VIH Campus, West Bengal	Plant Growth Promotion
ICAR - National Rice Research Institute, Cuttack Odisha India	Student Researcher	July, 2018	-		Dr. P. Panneerselvam Ph.D, ARS, FCHAI <i>Principal Scientist, CPD,</i> ICAR-National Rice Research Institute, Cuttack -751006, Odisha, India	Plant-AMF Interaction

## ONLINE COURSE

University	Course Name	Period of Time	Percentage
Jordan University of Science and Technology, Jordan	Microbiology and Forensic Science	28 <sup>th</sup> May, 2018	26 <sup>th</sup> June, 2018 85.00
Macquarie University, Australia	Climate Change	2018	2018 60.00
Massey University, New Zealand	Agriculture and the World We Live In		70.00

## RESEARCH INTERESTS

- Plant Microbe Interactions
- Soil fertility
- Crop nutrition
- Mycorrhizal interactions
- Soil Microbiology
- Biocontrol
- Molecular Biology
- Strigolactones

## PUBLICATIONS AND OTHERS

Total Research and Review Publications	: >30
Books	: 3
Book chapters	: 20
Popular article and other report	: 1
Research/ Technical Bulletin	: 1
Conference and training	: >50
Technology transferred/ developed	: 1
Editor/ EBM of Journal	: 4
Special Issue Editor	: 2
Reviewer (Publons)	: 15

## EDITORIAL BOARD MEMBER / EDITOR OF THE JOURNALS

### 1. Journal of Plant Sciences

<http://www.jplantsciences.org/>

ISSN Online: 2331-0731, ISSN Print: 2331-0723

**Editor** from 23<sup>rd</sup> June, 2020

<http://membership.sciencepublishinggroup.com/debasismitra3>

**Speciality:** Plant-Microbes Interaction, Soil Microbiology, Arbuscular Mycorrhizal Fungi, Biocontrol, and Molecular Biology section

### 2. Biology Research Journal

**Editorial Board Member** from 3<sup>rd</sup> November, 2020

<https://biorj.org/editorial-board/>

**Speciality:** Plant-Microbes Interaction and Microbiology

### 3. SVOA Microbiology

ISSN: 2634-534X

**Editorial Board Member** from 3<sup>rd</sup> November, 2020

[https://sciencevolks.com/microbiology/editor\\_panel.php](https://sciencevolks.com/microbiology/editor_panel.php)

**Section:** Microbiology and Plant-Microbes Interaction

### 4. Acta Scientific Agriculture

ISSN: 2581-365X; Impact Factor 0.734

**Review board member** from 23<sup>rd</sup> July, 2020

<https://actascientific.com/ASAG-RB.php>

### 5. Acta Scientific Microbiology

ISSN: 2581-3226; Impact Factor 1.125

**Review board member** from 14<sup>th</sup> Sept, 2020

<https://actascientific.com/ASMI-RB.php>

## SPECIAL ISSUE EDITOR

### 1. Special Issue on “Recent Trends and Future Prospects in Plant-Microbes Interactions Research” in Journal of Plant Sciences

ISSN Online: 2331-0731, ISSN Print: 2331-0723

**Role:** **Lead Guest Editor** (Date: 27<sup>th</sup> August 2020 – 30<sup>th</sup> August 2021)

<http://www.jplantsciences.org/specialissueinfo?journalid=215&specialissueid=215025>

### 2. Special Issue on “Current Strategy and Future Perspectives in Plant Stress Management” in International Journal of Microbiology and Biotechnology

ISSN: 2578-9686

**Role: *Lead Guest Editor*** (Date: 10<sup>th</sup> September 2020 - 10<sup>th</sup> September 2021)

<http://www.sciencepublishinggroup.com/specialissue/396006>

## **BOARD OF REVIEWER/ PEER REVIEWER / REVIEWER PANEL MEMBER**

### **1. Microbiology | Microbiology Society**

ISSN: 1350-0872; **Impact factor:** 3.235

*Peer Reviewer* from 2<sup>nd</sup> Oct, 2020

<https://www.microbiologyresearch.org/journal/micro/reviewers-board>

### **2. American Journal of Agricultural and Biological Sciences**

ISSN: 1557-4997

*Peer Reviewer* from 21<sup>st</sup> Oct, 2020

<https://thescipub.com/ajabs>

### **3. Current Research in Nutrition and Food Science**

ISSN: 2347-467X, Online ISSN: 2322-0007

*Peer Reviewer* from 28<sup>th</sup> Oct, 2020

<https://www.foodandnutritionjournal.org/about/>

### **4. Current Agriculture Research Journal**

ISSN: 2321-9971

*Peer Reviewer* from 8<sup>th</sup> Oct, 2020

<https://www.agriculturejournal.org/>

### **5. International Journal of Microbiology and Biotechnology**

ISSN Online: 2578-9686

*Peer Reviewer* from 23<sup>rd</sup> June, 2020

<http://membership.sciencepublishinggroup.com/debasismitra3>

### **6. The Open Microbiology Journal**

ISSN: 1874-2858

*Peer Reviewer* Member from 11<sup>th</sup> Aug 2020

<https://benthamopen.com/journal/reviewer-board.php?journalID=TOMICROJ>

### **7. Journal of Applied and Natural Science**

ISSN: 2231-5209

*Peer Reviewer* Member from 21<sup>th</sup> Aug 2020

<http://journals.ansfoundation.org/index.php/jans/>

## **SOCIETY MEMBER**

**1. International Association for Agricultural Sustainability, IAAS**

Address: 105 Cecil Street #18-39, the Octagon, Singapore

Year: Aug, 2020 to Aug 2021

<http://www.iaas.org.sg/>

**2. American Association for Science and Technology**

Nominated Year : July, 2020 – lifetime membership

<http://www.aascit.org/membership/mdev23>

**3. South American Mycorrhizal Research Network**

Nominated Year: July, 2020 – lifetime membership

<https://southmycorrhizas.org/about/members/>

**4. GEO BON: Group on Earth Observations Biodiversity Observation Network**

REg. Year. July, 2020

<https://geobon.org/>

<https://members.geobon.org/pages/index.php>

**5. International Association of Oncology**

Year: 25/07/2020 – 25/07/2021

<http://iaoncology.org/>

## **REVIEWER OF THE JOURNALS**

**1. Journal of Biomolecular Structure and Dynamics** (Taylor and Francis)

ISSN: 0739-1102; NAAS: 9.31; Impact Factor: 3.31

**2. Asian Journal of Soil Science and Plant Nutrition**

ISSN: 2456-9682

**3. Journal of Advances in Microbiology**

ISSN: 2456-7116

**4. Agricultural Science Research Journal**

ISSN: 2026-6073

**5. Issues in Biological Sciences and Pharmaceutical Research**

ISSN 2350-1588; Impact factor 0.395

**6. Journal of Microbiology, Biotechnology and Food Sciences**

ISSN 1338-5178; Impact factor 0.3

## **BOOK**

**1. Title: MICROBIAL RESOURCES FOR SUSTAINABLE AGRICULTURE**

**Author(s) / Edited by: Debasis Mitra, Divya Jain, P. Panneerselvam**

**Co-author(s): A. N. Ganeshamurthy, Ei Mon Myo, Rittick Mondal, Ansuman Senapati**

**Publisher: Lambert Academic Publishing**, Heinrich-Böcking-Straße, Saarbrücken, Germany.  
**ISBN: 978-613-9-83608-6**

**2. Title: MICROORGANISMS, BIOFERTILIZERS AND SUSTAINABLE AGRICULTURE**  
PART A

**Author(s) / Edited by: Debasis Mitra**, Bhaswatimayee Mahakur, Bahman Khoshru and Pradeep K. Das Mohapatra

**Publisher: Scholar's Press**, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union

**ISBN: 978-613-8-93946-7**

**3. Title: MICROORGANISMS, BIOFERTILIZERS AND SUSTAINABLE AGRICULTURE**  
PART B

**Author(s) / Edited by: Bahman Khoshru, Debasis Mitra**, Bhaswatimayee Mahakur, and Pradeep K. Das Mohapatra

**Publisher: Scholar's Press**, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union

**ISBN: 978-613-8-93945-0**

## RESEARCH PUBLICATIONS

- 1. Debasis Mitra**, Devvret Verma, Bhaswatimayee Mahakur, Anshul Kamboj, Bhavya Mudgal, Kumud Pant, Brijesh Prasad, Durga P. Barik and Pradeep K. Das Mohapatra (2020) Molecular docking studies of *Vitex negundo* L. natural compounds against papain-like protease (PLpro) of SARS CoV-2 (coronavirus) to conquer the pandemic situation in the world. **Journal of Biomolecular Structure and Dynamics**. (*Under Review*). (**Impact factor: 3.220; NAAS Score: 9.31**)
- 2. P. Panneerselvam**, G. Selvakumar, A. N. Ganeshamurthy, **Debasis Mitra** and Ansuman Senapati. (2020) Enhancing pomegranate (*Punica granatum* L.) plant health through intervention of *Streptomyces* consortium. **Biocontrol Science and Technology**. (*Accepted*). (**Impact factor: 1.215; NAAS score: 7.00**). <https://doi.org/10.1080/09583157.2020.1859095>
- 3. Ishita Biswas**, **Debasis Mitra**, Ansuman Senapati, Debanjan Mitra, Sourav Chattaraj, Murshed Ali, Goutam Basak, Periyasamy Panneerselvam and Pradeep K. Das Mohapatra (2020) Valorization of vermicompost with bacterial fermented chicken feather hydrolysate for the yield improvement of tomato plant: a novel organic combination. **Int. J. Recycl. Org. Waste Agric.** (*Accepted*). (**Impact factor: 1.64**) <http://dx.doi.org/10.30486/ijrowa.2020.1904599.1104>
- 4. Devvret Verma**, **Debasis Mitra**, Anshul Kamboj, Bhaswatimayee Mahakur, Priya Chaudhary, Kumud Pant, Rakesh Shrivastav, Pracheta Janmeda and Pradeep K. Das Mohapatra (2020) Potential

inhibitors of SARS-CoV-2 (COVID 19) proteases PLpro and Mpro/ 3CLpro: An *in silico* screening of three pertinent medicinal plant natural components.

5. **Debasis Mitra**, A. N. Ganeshamurthy, Komal Sharma, T. K. Radha and T. R. Rupa (2020) Plant growth promotion and biocontrol activity of some typical harsh environment rhizo-microbes and their effects on *Amaranthus cruentus* plants. **Res. J. Biotech.** 15(1):35-45. (**Impact factor: 0.21; NAAS Score: 5.00**).
6. **Debasis Mitra**, Navendra Uniyal, Komal Sharma, Anju Rani, Lok Man S. Palni, Akansha Chauhan, Poonam and Prabhakar Semwal (2020) Isolation and impacts of rhizobacteria from *Saussurea obvallata* (DC.) Edgew. (Brahma Kamal). **Biologica Nyssana (Journal of Biological Science)** 11(1):35-44. DOI: [10.5281/zenodo.4060292](https://doi.org/10.5281/zenodo.4060292)
7. **Debasis Mitra**, A. N. Ganeshamurthy, T. K. Radha, Komal Sharma and T. R. Rupa (2020) Soil physico-chemical properties and *in-vitro* zinc solubilization of rhizo-microbes from the different rhizospheric soil samples of harsh environment. **Annals Food Science and Technology.** 21(1):226-232.
8. Srushti Prajna Mohanty, Bhaswatimayee Mahakur, **Debasis Mitra** and Durga Prasad Barik. (2020) Qualitative phytochemical screening of leaf extract of two valuable medicinal plants (*Catharanthus roseus* and *Alstonia scholaris*) of Odisha. **Kerala Academy of Sciences. International Webinar on Phytochemistry-2020.** pp. 28.
9. **Debasis Mitra**, Anju Rani, Lok Man S. Palni, Navendra Uniyal, Komal Sharma, Akansha Chauhan, Prabhakar Semwal and Poonam Arya (2019) Isolation and characterization of dominant fungi from rhizospheric soil of *Saussurea obvallata* (DC.) Edgew. (Brahma Kamal) of the Indian Himalayan region. **Journal of Pure and Applied Microbiology.** 13(3):1509-1515(**Impact factor: 0.157; NAAS Score:4.00\*\***) <https://doi.org/10.22207/JPAM.13.3.22>
10. Periyasamy Panneerselvam, Sowarnalisha Sahoo, Ansuman Senapati, Upendra Kumar, **Debasis Mitra**, Chidambaranathan Parameswaran, Annamalai Anandan, Anjani Kumar, Afrin Jahan, Amresh Kumar Nayak (2019) Understanding interaction effect of arbuscular mycorrhizal fungi in rice under elevated carbon dioxide conditions. **Journal of Basic Microbiology.** 59 (12), 1217-1228. (**Impact factor:1.909; NAAS Score: 7.76**) <https://doi.org/10.1002/jobm.201900294>
11. P. Panneerselvam, U. Kumar, A. Senapati, L. Sharma, P Lepcha, S.R. Prabhukarthikeyan, A. Jahan, G.P.P. Govindharaj, S. Lenka, P.K. Nayak, **Debasis Mitra**, M.S. Sagarika, S. Thangappan and U. Sivakumar (2018) Antagonistic and plant-growth promoting novel *Bacillus* species from long-term organic farming soils from Sikkim, India. **3 Biotech.** 9 (11), 416. (**Impact factor: 2.389; NAAS Score: 7.79**) <https://doi.org/10.1007/s13205-019-1938-7>



12. Radha T.K., Ganeshamurthy A. N., **Debasis Mitra**, Komal Sharma, Rupa T.R. and G. Selvakumar (2018) Feasibility of substituting cocopeat with rice husk and saw dust compost as a nursery medium for growing vegetable seedlings. **The BioScan**. 13(2): 619-623. ISSN: 0973-7049. (**NAAS Score :5.26**)
13. Vidyashree D.N., Muthuraj R., Panneerselvam P. and **Debasis Mitra** (2018) Organic acids production by zinc solubilizing bacterial isolates. **Int. J. Curr. Microbiol. App. Sci.** 7(10): 626-633. ISSN: 2319-7706. (**NAAS score:5.38**) <https://doi.org/10.20546/ijcmas.2018.710.070>
14. Navendra Uniyal, Akansha Chauhan, Komal Sharma and **Debasis Mitra** (2018) Plant growth promotion by bacterial inoculants with different conditions and estimation of enzyme activity from germination seeds and bacterial isolates. **Curr. Trends Biotechnol. Pharm.** 12(1): 51-62. (**Impact factor: 0.320; NAAS: 3.90**)
15. **Debasis Mitra**, Komal Sharma, Ganeshamurthy A.N., Radha T.K., T. R. Rupa and G. Selvakumar (2017) International Symposium on Horticulture: Priorities and Emerging Trends. ICAR-IIHR. **Page. 415.**
16. **Debasis Mitra** and Arup K Mondal (2016) Plant Growth Promotion: on *Cicer arietinum* L. under elaborated treatment conditions. **Int. J. Curr. Microbiol. App. Sci.** 5(3):159-180. (**NAAS score:5.38**) <http://dx.doi.org/10.20546/ijcmas.2016.503.021>
17. **Debasis Mitra**, Komal Sharma, Navender Uniyal, Akansha Chauhan and Paratapar Sarkar (2016) Study on Plant Hormone (Indole-3-Acetic Acid) Producing Level and Other Plant Growth Promotion Ability (PGPA) by *Asparagus racemosus* (L.) Rhizobacteria. **J. Chem. Pharm. Res.** 8(4): 995-1002. (**Impact factor: 0.39**).
18. **Debasis Mitra** and Arup K Mondal (2015) Growth and vigour improvement of *Lycopersicon esculentum* by a bacterial isolate (*Bacillus* sp.) From *Leonurus sibiricus* rhizosphere. **Int. J. Res.** 2(10): 602-608.
19. **Debasis Mitra**, Arup K Mondal, Manas Mondol and Arijit Mukhopadhyay (2014) Plant growth promoting traits and prospects of using phosphate solubilizing *pseudomonas* sp. isolated from laterite soil. **Annals Food Science and Technology.** 15(2): 309-315.
20. **Debasis Mitra**, Arup K Mondal and Arijit Mukhopadhyay (2014) Enhance plant health by using of phosphate solubilizing *Bacillus* sp. as ecofriendly Bio fertilizer. **Int. J. Res.** 1(11): 1438-1448.
21. **Debasis Mitra**, Arup K Mondal, Saikat Acharya and Arijit Mukhopadhyay (2014) Isolation and Characterization of some intracellular pigmented bacteria isolated from Soil & Coal powder. **Res. in Biotech.** 5(6): 24-32.

22. **Debasis Mitra**, Arup K Mondal and Arijit Mukhopadhyay (2014) Unique level of Multi-Drug Resistance (MDR) in *Pseudomonas aeruginosa* strain DEB1. **Int. J. Sci. Res.** 3(9): 455-460.
23. B. Saritha, P. Panneerselvama, K. Srinivas, **Debasis Mitra** and Ansuman Senapati (2020) Enhancing the sapota [*Manilkara achras* (Mill) Forsberg] yield through intervention of Arbuscular Mycorrhizal fungi and its associated bacteria. **Res. J. Biotech.** (Accepted). (Impact factor: 0.21; NAAS score:5.00)
24. Periyasamy Panneerselvam, Sanjoy Saha, Ansuman Senapati, Amaresh Kumar Nayak, Upendra Kumar and **Debasis Mitra**. (2020) New generation post-emergence herbicides and their impact on arbuscular mycorrhizae fungal association in rice using deep learning approaches. **Rice Science** (Under review).
25. Periyasamy Panneerselvam, Ansuman Senapati, Laxuman Sharma, Amaresh Kumar Nayak, Anjani Kumar, Upendra Kumar, S. R. Prabhukarthikeyan, **Debasis Mitra** and Sagarika, M.S. (2020). Understanding plant growth promoting potential of Enterobacter in rice isolated from long-term organic farming soil of Sikkim, India through supervised learning approach. **Current Research in Microbial Sciences.** (Under Review).

## REVIEW PUBLICATIONS

1. Bahman Khoshru, **Debasis Mitra**, Elaheh Khoshmanzar, Ei Mon Myo, Navendra Uniyal, Bhaswatimayee Mahakur, Pradeep Kumar Das Mohapatra, P. Panneerselvam, Hanane Boutaj, Mehrdad Alizadeh, Martha Viviana Torres Cely, Ansuman Senapati and Anju Rani (2020) Current scenario and future prospects of plant growth-promoting rhizobacteria: an economic valuable resource for the agriculture revival under stressful conditions. **Journal of Plant Nutrition.** doi. 10.1080/01904167.2020.1799004 (Impact Factor: 1.132; NAAS score: 6.75). <https://doi.org/10.1080/01904167.2020.1799004>
2. **Debasis Mitra**, Snežana Anđelković, P. Panneerselvama, Ansuman Senapati, Tanja Vasić, A. N. Ganeshamurthy, Manisha, Navendra Uniyal and T. K. Radha (2019) Phosphate solubilizing microbes and biocontrol agent for plant nutrition and protection: current perspective. **Communications in Soil Science and Plant Analysis.** 51(5):645-657. (Impact Factor: 0.767; NAAS score: 6.69). <https://doi.org/10.1080/00103624.2020.1729379>
3. Divya Jain, Navendra Uniyal, Debasis Mitra, Pracheta Janmeda (2020) Traditional resources and use of aromatic and ethno- medicinal plants in Uttarakhand: Compliment of nature. **International Journal of Herbal Medicine.** 8(5):88-95. (NAAS score: 3.2).
4. Bahman Khoshru, **Debasis Mitra**, Bhaswatimayee Mahakur, Mohammad Reza Sarikhani, Rittick Mondal, Devvret Verma, and Kumud Pant (2020) Role of soil rhizobacteria in utilization of an

indispensable micronutrient zinc for plant growth promotion. **Journal of Critical Reviews**. 21(06):239-251.

5. **Debasis Mitra**, Snežana Anđelković, P. Panneerselvam, Manisha, A. Senapati, Tanja Vasić, A. N. Ganeshamurthy, Devvrat, Poonam, T. K. Radha and D. Jain (2019) Plant Growth Promoting Microorganisms (PGPMs) help in Sustainable Agriculture: Current Perspective. **Int. J. Agri. Sci. Vet. Med.** 7(2): 50-74. **(NAAS score:2.83)**
6. **Debasis Mitra**, Navendra Uniyal, P. Panneerselvam, Ansuman Senapati, A. N. Ganeshamurthy, Vikas Kumar and Divya Jain (2019) Role of mycorrhiza and its associated bacteria on plant growth promotion and nutrient management in sustainable agriculture. **IJLSAS**. 1(1): 1-11.
7. Devvret Verma, B. Mudgal, P. Chaudhary, B. Mahakur, **Debasis Mitra**, K. Pant & A. Thapliyal (2020) Medicinal Plants of Uttarakhand (India) and Their Benefits in the Treatment of Tuberculosis: Current Perspectives. **Global Journal of Bio-Science and Biotechnology**. 9(3): 75-85. **(Impact Factor: 0.675; NAAS: 4.13)**
8. **Debasis Mitra**, R. Mondal, Bahman Khoshru, N. Uniyal, Ei Mon Myo, H. Boutaj, Beatriz E. Guerra, T. K. Radha, Bhaswatimayee Mahakur, A. Senapati, P. Panneerselvam, A. N. Ganeshamurthy, Snežana Anđelković, Tanja Vasić, Anju Rani, and Pradeep Kumar Das Mohapatra. Enhanced plant growth, nutrient acquisition and crop protection using actinobacteria: An advancement in soil, plant and microbial multifactorial interaction. **Pedosphere. (Under Review) (Impact Factor: 3.736)**.
9. **Debasis Mitra**, Guerra Sierra B. E., Bahman Khoshru, Bhaswatimayee Mahakur, Claudia Krüger, Priya Chaudhary, Faride Noroozi Shahri, Rihab Djebaili, Adeyemi N. Olatunbosun, Enas M. El-Ballat, Mohamed A. El-Esawi, Shokufeh Moradi, Rittick Mondal, Ansuman Senapati, P. Panneerselvam and Pradeep K. Das Mohapatra (2020) Impacts of arbuscular mycorrhizal fungi on rice growth, development and stress management with a particular emphasis on strigolactone effects on plant root development. **Communications in Soil Science and Plant Analysis (Under Review). (Impact Factor: 0.767; NAAS score: 6.69)**.
10. **Debasis Mitra**, Djebaili Riha, Bhaswatimayee Mahakur, Marika Pellegrini, Aniruddha Sarker, Priya Chaudhary, Bahman Khoshru, Maddalena Del Gallo, Mahmoud Kitouni, P. Panneerselvam, Durga P. Barik & Pradeep Kumar Das Mohapatra (2020) Arbuscular mycorrhizal symbiosis: plant growth improvement and induction of resistance under stressful conditions. **Journal of Plant Nutrition (Under Review). (Impact Factor: 1.132; NAAS score: 6.75)**.
11. **Debasis Mitra**, Sergio de los Santos-Villalobos, Priya Chaudhary, Bhaswatimayee Mahakur, Alondra M. Díaz Rodríguez, Fannie I. Parra Cota, Bahman Khoshru, Periyasamy Panneerselvam, Shokufeh Moradi, Pradeep K. Das Mohapatra Rittick Mondal, Sagarika, M.S., Ansuman Senapati and Snežana Anđelković. 2020. Amelioration of high and low temperature stress in plants by

potential plant growth-promoting rhizobacteria for the improvement of crop productivity. **Environmental Sustainability (Under Review)**.

## **BOOK CHAPTERS**

- 1. Debasis Mitra**, Priya Chaudhary, Devvret Verma, Bahman Khoshru, Ansuman Senapati, Bhaswatimayee Mahakur, P. Panneerselvam, Pradeep K. Das Mohapatra and Snežana Anđelković (2020) Bioinformatics role in studying microbe mediated biotic and abiotic stress tolerance, In. Kumar - Microbial Management of Plant Stresses: Current Trends, Application and Challenges. Elsevier, Netherlands, pp. xxx-xxx.
- 2. Debasis Mitra**, Priya Chaudhary, Bhaswatimayee Mahakur, D. P. Barik, Bahman Khoshru and Pradeep Kr. Das Mohapatra (2020) Interaction of rhizome-bacteria & fungi in plant, In. Mitra, Mahakur, Khoshru, and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 17-39.
- 3.** Kumar Anand, Amit Kumar Dutta, Priya Chaudhary, Devvret Verma, Bhaswatimayee Mahakur, Bahman Khoshru and **Debasis Mitra** (2020) Basic Information of Beneficial Microbes in Crop Production and Bio-fertilizer production In. Mitra, Mahakur, Khoshru, and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 1-16.
- 4.** Bhaswatimayee Mahakur, Durga P. Barik, **Debasis Mitra** and Pradeep K. Das Mohapatra (2020) Bio-control Activity of rhizo-microbes for plant growth promotion and protection In. Mitra, Mahakur Khoshru, and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 40-51.
- 5.** Priya Chaudhary, **Debasis Mitra**, Bhaswatimayee Mahakur and Pracheta Janmeda (2020) Azolla: Uses, Role, Benefits and Importance in crop production, In. Mitra, Khoshru, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 65-92.
- 6.** Bahman Khoshru, **Debasis Mitra**, and Bhaswatimayee Mahakur (2020) Advances in Bio-fertilizers or Bio-inoculums Production Research, In. Mitra, Khoshru, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 93-131.
- 7.** Shokufeh Moradi, Bahman Khoshru, Sajad Bayat, **Debasis Mitra** and Devvret Verma (2020) Rhizobia, Biofertilizers, and Their Plant Growth Promoting Traits, In. Khoshru, Mitra, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part B, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 1-26.

8. Priya Chaudhary, **Debasis Mitra**, Pracheta Janmeda, and Pradeep K. Das Mohapatra (2020) Assessment of different carriers' materials for biofertilizers and their effect on plant growth, In. Mitra, Mahakur, Khoshru and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part A, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 27-50.
9. Saeedeh Ansari, Bahman Khoshru, **Debasis Mitra**, Bhaswatimayee Mahakur, Shokufeh Moradi (2020) The Quality Control of Biofertilizers, In. Khoshru, Mitra, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part B, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 51-84.
10. Sajad Bayat, Shokufeh Moradi, Bahman Khoshru, Saeedeh Ansari and **Debasis Mitra** (2020) PGPMs and Bioremediation: Novel Approaches to Cleaning Up Polluted Soils, In. Khoshru, Mitra, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part B Scholar's Press, Baznīcas iela 13- 17, Rīgā, LV-1010 Latvia, European Union. pp. 85-107.
11. Bahman Khoshru, Shokufeh Moradi, Sajad Bayat, **Debasis Mitra** and Saeedeh Ansari (2020) Biofertilizers, Preparation, Type and Diversity, In. Khoshru, Mitra, Mahakur and Mahapatra Eds. Microorganisms, Biofertilizers and Sustainable Agriculture. Part B, Scholar's Press, Baznīcas iela 13-17, Rīgā, LV-1010 Latvia, European Union. pp. 108-150.
12. Shokufeh Moradi, Bahman Khoshru, **Debasis Mitra**, Bhaswatimayee Mahakur, Pradeep K. Das Mohapatra, Behnam Asghari and Mansour Ghorbanpour. (2020) Transcriptomics Analyses and the Relationship between Plant and Plant Growth-Promoting Rhizobacteria (PGPR). Springer Publishing. (**Submitted**).
13. Vinay Kumar, Rajndra Sonwani, Lata Jain, Bhanu Pratap Singh Gautam, Manjul Gondwal, Ravindra Soni, Anju Rani and **Debasis Mitra** (2020). Bio-inoculants for Biodegradation and Bioconversion of Agrowaste: Status and Prospects. Springer Publishing. (**Submitted**).
14. Al-Tawaha et al. 2021. Application of Arbuscular mycorrhiza fungi (AMF) to Agricultural and Horticultural Crops. CRC Press: Taylor & Francis. (**Submitted**).
15. **Debasis Mitra**, Rittick Mondal, Divya Jain, Tanja Vasić, Komal Sharma, Bahman Khoshru, P Panneerselvam, AN Ganeshamurthy, Ei Mon Myo, Bhaswatimayee Mahakur and A Senapati (2019) Influence of Arbuscular Mycorrhizal fungi (AMF) on plant growth promotion and nutrient management. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 41-57.
16. Ei Mon Myo, Divya Jain, **Debasis Mitra**, P. Panneerselvam, Snežana Anđelković, Ansuman Senapati, A. N. Ganeshamurthy, Rittick Mondal, Bhaswatimayee Mahakur and Navendra Uniyal (2019) Plant-endophytic bacterial associations help in plant growth promotion and protection against the fungal pathogens. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects

of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 1-33.

17. Rittick Mondal, Divya Jain, Ei Mon Myo, **Debasis Mitra**, Navendra Uniyal Vaishali Tyagi and Prabhakar Semwal (2019) Beneficial soil bacteria and fungi helps in plant growth promotion. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 34-40.
18. Priya Chaudhary, Divya Jain and **Debasis Mitra** (2019) Actinomycetes - Basics and beneficial role in agriculture. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 58-83.
19. Priya Chaudhary, Divya Jain, Kumar Anand and **Debasis Mitra** (2019) Biofertilizers: A sustainable approach for plant and soil health. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 106-119.
20. Snežana Anđelković, Devvret Verma, Tanja Vasić, and **Debasis Mitra** (2019) Bioinformatics application and advancement: plant microbes interaction. (Mitra *et al.* 2019 eds. Research Advancements and Beneficial effects of Plant Growth Promoting Microorganism in Agriculture; ISBN: 978-613-9-83608-6, Lambert Academic Publishing) Page 84-91.

## NEWS LETTER

1. Ganeshamurthy A.N., Komal Sharma, **Debasis Mitra**, Radha T.K. and T. R. Rupa (2017) Isolation and characterization of Arbuscular mycorrhizal fungi and their role in plants growing under harsh environments. **Mycorrhiza News - mycorrhizae (TERI)**. 29(3): 7-12. ISSN 0970-695X. ([http://bookstore.teri.res.in/e\\_issue\\_text\\_1.php?oj\\_id=350&sector=857](http://bookstore.teri.res.in/e_issue_text_1.php?oj_id=350&sector=857))

## RESEARCH TECHNICAL BULLETIN

1. **Title:** Development of Microbial consortium for plant growth promotion, nutrient and disease management in rice-horticultural based cropping system in Sikkim  
**Author(s):** P. Panneerselvam, L. Sharma, A. Senapati, A.K. Nayak, SR P. Karthikeyan, U. Kumar, A. Kumar, G.P. Pandi, **D. Mitra**, A. Anandan, P.K. Nayak  
**Publisher:** ICAR-NRRI, Cuttack  
**Bulletin No:** 28  
**Pg, No.:** 1-37

## RESEARCH WORK EXPERIENCE

## **Technique / Technical Experience:**

### **A.**

- DNA / RNA Extraction from Blood/Tissue/Microorganisms.
- UV/Visible Spectrophotometer analysis and Chromatography.
- Atomic absorption spectrophotometer (AAS) nutrient analysis.
- Fiber Analyzer (enzymes) and muffle furnace
- *In vivo* and *In vitro* PGP activity.
- CHNS and Phenol-tannin analysis.
- Physico-Chemical Analysis.
- PCR – PAGE – SDS: PAGE.
- HPLC, ELISA (Microbial Biofilm and OD) and Gel Electrophoresis.
- Immunohistochemistry and Immunocytochemistry.

### **B.**

- Isolation and characterization of arbuscular mycorrhizal fungi (AMF) and PGPM.
- AMF interaction with PGPR.
- Microbial Biofilm (Plant Microbes Interaction).
- Antagonistic activity and interaction of microbes (Biocontrol).
- Antibiotic markers profiling and Diversity.
- Compatibility test of microbes.
- Composting and Biofertilizers.
- Microbial composition, Diversity and Activity.
- Plant growth, colonization and disease control by microbes.
- Nitrogen Fixation and role of phosphate in PGP.

### **C.**

- NCBI-Gene bank submission and primer design.
- DNA, RNA and Protein structure prediction.
- NT-SYS, PRISM and Heatmap plot analysis.
- T-Coffee, CLC workbench and molecular phylogenetic analysis.
- MSA and MEGA analysis.
- DNA barcoding: Ibol & BOLD Sys V3.

## **RESEARCH PROJECT DETAILS**

### **Bachelor's Degree Project**

**Title:** Unique level of multidrug-resistance in *Pseudomonas aeruginosa* strain DEB1.

**Submitted:** Vidyasagar University, West Bengal and Oriental Institute of Science and Technology, VIH Campus, West Bengal.

**Supervision:** Dr. A. Mukhopadhyaya, Asst. Professor, Oriental Institute of Science and Technology, VIH Campus, West Bengal.

### **Master's Degree Project**

**Title:** Isolation and Characterization of potential nutrient mobilizer and plant growth promoters from some typical harsh environment of Karnataka.

**Submitted:** Graphic Era University, Dehradun and ICAR-IIHR, Karnataka.

**Supervision:** Dr. A. N. Ganeshamurthy, Principal Scientist and Head, Division of Soil Science & Agril. Chemistry, ICAR - Indian Institute of Horticultural Research, Bangalore-56008 India

**One year research works** on Phosphate solubilizing bacteria (*Bacillus* sp. & *Pseudomonas* sp.) and Plant growth promoting (OIST, Midnapur)

**Supervision:** Dr. A. Mukhopadhyaya, Asst. Professor, Oriental Institute of Science and Technology, VIH Campus, West Bengal.

### **E - PUBLICATION AND MICROBIAL CULTURES DEPOSITED DETAILS**

[1] **Strain Name:** *Pseudomonas aeruginosa* strain DEB1 16S rRNA gene, partial sequence.

**Author:** Mitra D., Mondal K. A., Mukhopadhyay A.

**Accession No.:** KF195926, Scheduled released: Sep 15, 2013.

DOI: 10.13140/RG.2.2.29825.76647.

[2] **Strain Name:** *Phanerochaete chrysosporium* isolate MaHaD1 5.8S subunit ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MK172050 and **Culture deposit NFCCI Accession No.:** 4192

[3] **Strain Name:** *Trichoderma longibrachiatum* isolate MaHaD2 5.8S subunit ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MK172051 and **Culture deposit NFCCI Accession No.:** 4193

[4] **Strain Name:** *Aspergillus fumigatus* isolate MaHaD3 5.8S subunit ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MK172052 and **Culture deposit NFCCI Accession No.:** 4194

**Author:** Mitra, D., Uniyal, N., Sharma, K., Chauhan, A., Palni, L.M.S., Rani, A., Poonam, A. and Semwal, P.

**Scheduled released:** Nov 20, 2018.

[5] **Strain Name:** *Bacillus cereus* strain PKID1 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT158702.1

**Author:** Das Mohapatra, P.K., Biswas, I. and Mitra, D.

**Scheduled released:** 12-MAR-2020.

[6] **Strain Name:** *Pseudomonas putida* strain PANS13 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020300.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and Mitra, D.



**Scheduled released:** 11-FEB-2020.

[7] **Strain Name:** *Enterobacter cloacae* strain PANS14 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT158702.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[8] **Strain Name:** *Pseudomonas* sp. strain PANS12 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020299.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[9] **Strain Name:** *Enterobacter cloacae* strain PANS11 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020298.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[10] **Strain Name:** [*Pseudomonas*] *hibiscicola* strain PANS9 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020297.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[11] **Strain Name:** *Enterobacter cloacae* strain PANS5 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020296.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[12] **Strain Name:** *Pseudomonas aeruginosa* strain PANA2 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020295.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[13] **Strain Name:** *Pseudomonas fluorescens* strain PANSK10 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020294.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[14] **Strain Name:** *Enterobacter cloacae* strain PANSKM6 16S ribosomal RNA gene, partial sequence

**NCBI Accession No.:** MT020293.1

**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**

**Scheduled released:** 11-FEB-2020.

[15] **Strain Name:** *Enterobacter mori* strain PANAT 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT020292.1  
**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**  
**Scheduled released:** 11-FEB-2020.

[16] **Strain Name:** *Enterobacter sp.* strain PANP3 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT020291.1  
**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**  
**Scheduled released:** 11-FEB-2020.

[17] **Strain Name:** *Enterobacter asburiae* strain PANP2 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT020290.1  
**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**  
**Scheduled released:** 11-FEB-2020.

[18] **Strain Name:** *Bacillus subtilis* strain PANA13 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT020289.1  
**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**  
**Scheduled released:** 11-FEB-2020.

[19] **Strain Name:** *Stenotrophomonas maltophilia* strain PANA3 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT020288.1  
**Author:** Panneerselvam, P., Senapati, A., Sharma, L. and **Mitra, D.**  
**Scheduled released:** 11-FEB-2020.

[20] **Strain Name:** *Azotobacter chroococcum* strain PanAz3 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT186700.1  
**Author:** Panneerselvam, P., Senapati, A., **Mitra, D.**, Sharma, L., Kumar, U. and Sagarika, M.S.  
**Scheduled released:** 18-MAR-2020.

[21] **Strain Name:** *Pseudomonas putida* strain PanPs4 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT186701.1  
**Author:** Panneerselvam, P., Senapati, A., **Mitra, D.**, Sharma, L., Kumar, U. and Sagarika, M.S.  
**Scheduled released:** 18-MAR-2020.

[22] **Strain Name:** *Azotobacter beijerinckii* strain PanAzb5 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT186701.1  
**Author:** Panneerselvam, P., Senapati, A., **Mitra, D.**, Sharma, L., Kumar, U. and Sagarika, M.S.  
**Scheduled released:** 18-MAR-2020.

[23] **Strain Name:** *Rhizobium* sp. strain PanRhiz6 16S ribosomal RNA gene, partial sequence  
**NCBI Accession No.:** MT186701.1  
**Author:** Panneerselvam, P., Senapati, A., **Mitra, D.**, Sharma, L., Kumar, U. and Sagarika, M.S.  
**Scheduled released:** 18-MAR-2020.

## **DETAILS OF TECHNOLOGY TRANSFERRED/ DEVELOPED**

**1. Title:** Cocopeat with rice husk and saw dust compost as a nursery medium for growing vegetable seedlings

**Author(s):** TK Radha, AN Ganeshamurthy, **Debasis Mitra**, Komal Sharma, TR Rupa, G. Selvakumar

**Submitted:** KRISHI (ICAR RESEARCH DATA REPOSITORY FOR KNOWLEDGE MANAGEMENT – An Institutional Publication and Data Inventory Repository)

<https://krishi.icar.gov.in/jspui/handle/123456789/23661>

<https://krishi.icar.gov.in/jspui/bitstream/123456789/23661/1/The%20BioScan.pdf>

## **WORKSHOP AND TRAINING**

### **1. International Peer Review Workshop – 2020**

**Organized by:** Panelist of Excellent Academicians and Editors

**Sponsored by:** IP Innovative Publication Pvt. Ltd.

**Date:** 19<sup>th</sup> to 27<sup>th</sup> September, 2020

### **2. International Webinar : Recombinant DNA Technology**

**Organized by:** Merck High-End Skill Development Centre, a CSIR-IMTech Initiative (Ministry of Science & Technology, Govt. of India)

**Sponsored by:** Merck Innovation Lab, Bangalore Chandigarh

**Date:** May-June, 2020

### **3. Rhizosphere Engineering: Genomes to Metagenomes**

**Workshop Organized by:** Division of Microbiology & Plant Pathology, ICAR-Indian Agricultural Research Institute, New Delhi INDIA

**Theme:** High-throughput DNA sequencing technologies, metagenomes and Rhizosphere microbiome profiling and function

**Sponsored by:** National Agricultural Higher Education Project (NAHEP), Krishi Anusandhan Bhawan - II, New Delhi - 110 012 INDIA

**Date:** 10<sup>th</sup> February 2020

### **4. Cell, Molecular & Developmental Biology**

**Workshop Organized by:** Department of Biotechnology, Graphic Era University, Dehradun 248002 Uttarakhand India

**Sponsored by:** Uttarakhand State Council for Science & Technology (UCOST), Vigyan Dham, Dehradun Uttarakhand India

**Date:** 26<sup>th</sup> Oct – 31<sup>st</sup> Oct 2015.

## **GRANTS, AWARDS, AND SCHOLARSHIPS**

### **Swami Vivekananda Merit-cum-Means Scholarship**

**Funded by:** Government of West Bengal, India

**For:** Ph.D. Microbiology, Raiganj University, India

**ID:** WBP191584588825

**Date:** Jan, 2020 – till.

## **SEMINARS, WEBINAR, E-QUIZ AND CONFERENCE**

### **1. International webinar on “Role of Soil Microorganisms in Sustainable Agriculture”**

**Organized by:** Kumaraguru Institute of Agriculture, India

**Date:** 7<sup>th</sup> Nov, 2020

### **2. International Webinar on " Sustainable Environmental factor as immuno booster"**

**Organized by:** Dept. of Zoology. Fakir Mohan University, India

**Date:** 28<sup>th</sup> Sept, 2020

### **3. National Webinar on “opportunities of microbiologist in the new normal era”**

**Organized by:** Department of Microbiology, Vidyasagar University, West Bengal India

**Date:** 26-27<sup>th</sup> Sept, 2020

### **4. International Webinar on " Immunity, and Vaccines:Microbiomes"**

**Organized by:** Association of Microbiologists of India, India

**Date:** 20<sup>th</sup> Sept, 2020

### **5. International Webinar on "Nutrition, Health and Stress Management in the Context of COVID 19 Pandemic"**

**Organized by:** Dept of Microbiology & Nutrition Jointly with IQAC, Bankura Sammilani College

**Date:** 7<sup>th</sup> Sept, 2020

### **6. International webinar on “The Challenges and Scientific Advances of SARS – COV 2”**

**Organized by:** Department of Microbiology, Assam University in collaboration with Springer Nature and Society of Environmental Sustainability.

**Date:** 27<sup>th</sup> August, 2020

### **7. International webinar on “Phytochemistry by design”**

**Organized by:** Amity International Society for Natural Products, Health & Allied Sciences Domain, Amity University Uttar Pradesh, Noida (INDIA).

**Date:** 19<sup>th</sup> August, 2020

**8. International Webinar on "COVID-19 Pandemic and Co-infections: Challenges, Prospective Treatments and Societal Impact"**

**Organized by:** Department of Microbiology, Raiganj University, WB, India

**Date:** 29<sup>th</sup> August, 2020

**9. National Level Sports Quiz Competition (NSQC-2020)**

**Organized by:** Bankura Sammilani College, Bankura, WB, India

**Date:** 29<sup>th</sup> August, 2020

**10. National Webinar: Environmental Sustainability in Present Scenario- A Multidisciplinary Approach**

**Organized by:** Department of Geography and Department of Botany Santal Bidroha Sardha Satbarshiki Mahavidyalaya, West Bengal

**Date:** 29<sup>th</sup> August, 2020

**11. International Webinar : Weed Science: Challenges in the California Rice Systems**

**Organized by:** Bioingene, India

**Date:** 28<sup>th</sup> August, 2020

**12. International Webinar : Science, Biology and World's Future**

**Organized by:** Department of Botany & IQAC Dinabandhu Andrews College, Garia, Kolkata

**Date:** 25<sup>th</sup> August, 2020

**13. International Webinar : COVID-19 Infection: Origin and Transmission**

**Organized by:** Association of Microbiologists of India (AMI), Hisar-Unit

**Date:** 15<sup>th</sup> August, 2020

**14. National Webinar : Changes in The International Order in The Wake of Covid-19 Pandemic**

**Organized by:** Bagnan College and IQAC, Bagnan College

**Date:** 22<sup>th</sup> August, 2020

**15. International Webinar : Current Insights on Global Pandemic**

**Organized by:** Department of Microbiology, Kulti College and IQAC, Kulti College

**Date:** 16<sup>th</sup> August, 2020

**16. International Webinar : MicroProteins: Novel tool to bioengineer future ready plants**

**Organized by:** Bioingene

**Date:** 17<sup>th</sup> August, 2020

**17. International Webinar on "Viral Infection and Immunity: Physiological Aspects and Preventive Strategy"**

**Organized by:** Dept. of Physiology, Belda College, West Bengal

**Date:** 14<sup>th</sup> August, 2020

**18. International Webinar : Role of Agricultural & Environmental Biotechnology for a Sustainable Future**

**Organized by:** Bioingene

**Date:** 11<sup>th</sup> August, 2020

**19. International Webinar : Covid-19 Treatment and Understanding of Human Immune Response-A Complex Circuit For Vaccine Research**

**Organized by:** Vivekananda Mahavidyalaya, Hoogly, West Bengal, India

**Date:** 1<sup>st</sup> August, 2020

**20. International Webinar : The International Webinar on Himalayan Biodiversity**

**Organized by:** Department of Life Sciences and Biotechnology, Graphic Era (Deemed to be University), Dehradun and Uttarakhand Science Education & Research Centre, Uttarakhand

**Date:** 8<sup>th</sup> August, 2020

**21. International Webinar : Host-Microbe Interactions: Present and Future Perspectives**

**Organized by:** School of Biotechnology, Department of Life Sciences, Presidency University, Kolkata

**Date:** 6-7<sup>th</sup> August, 2020

**22. International Webinar : Battle Against Novel Coronavirus**

**Organized by:** Promega Biotech India Pvt. Ltd and Biotechnika info labs Pvt. Ltd

**Date:** 5<sup>th</sup> August, 2020

**23. International Webinar : Mainstreaming underutilized crops: The story of foxtail millet**

**Organized by:** Bioingene

**Date:** 6<sup>th</sup> August, 2020

**24. International Webinar on "Facing the Truth : Judging Epidemics and Pandemics in Modern Bengal from the Lens of History**

**Organized by:** The Department of History, Raghunathpur College, Raghunathpur, Purulia, WB, India

**Date:** 5<sup>th</sup> & 6<sup>th</sup> August, 2020

**25. International Webinar: Symbiosis: When living together is a win-win**

**Organized by:** International Symbiosis Society

**Sponsored by:** Springer Nature

**Date:** 30<sup>th</sup> July, 2020

**26. National Webinar : Commercial Values of Medicinal Plants in the field of Siddha medicine**

**Organized by:** Dept. of Microbiology and Commerce, Rathinam College, Coimbatore

**Date:** 29<sup>th</sup> July, 2020

**27. National Webinar on Environmental Issues**

**Organized by:** Siddhinath Mahavidyalaya, West Bengal, India

**Date:** 9<sup>th</sup> July, 2020

**28. Two Day International Level Webinar: History of Bengal From Micro To Macro**

**Organized by:** Department of History, Manikchak College

**Date:** 24<sup>st</sup> – 25<sup>th</sup> July, 2020

**29. Scanning COVID-19 Pandemic through Gender Lens**

**Organized by:** SAHELI and IQAC, Garhbeta College, Paschim Medinipur WB

**Date:** 20<sup>st</sup> July, 2020

**30. Advancing Scientific Research for Future Healthcare: Special Emphasis on Gene Therapy**

**Organized by:** Amity International Society for Natural Products, Health & Allied Sciences Domain, Amity University Uttar Pradesh, Noida (INDIA).

**Date:** 21<sup>st</sup> July, 2020

**31. Oncology Scientific update in COVID 19 pandemic**

**Organized by:** International Association of Oncology (IAO)

**Date:** 18<sup>th</sup> July, 2020

**32. Advanced ovarian cancer prolonging survival in the present decade**

**Organized by:** International Association of Oncology (IAO)

**Date:** 25<sup>th</sup> July, 2020

**33. International Webinar on : CRISPR-Cas Precision Genome Engineering**

**Organized by:** BIOINGENE

**Date:** 24<sup>th</sup> July, 2020

**34. International Webinar on Plant Science Research: Role of reactive oxygen species and antioxidant machinery in crop plants**

**Organized by:** BIOINGENE

**Date:** 17<sup>th</sup> July, 2020

**35. PRACTICE OF FOLK-CULTURE IN PRESENT SOCIO-ECONOMIC CONCEPT**

**Organized by:** Department of Bengali & IQAC, Hazi A.K. Khan College

**Date:** 14 - 15<sup>th</sup> July, 2020

**36. National Webinar: Pandemics and Disaster Management: Understanding And Coping**

**Organized by:** Xavier's College (Autonomous), Kolkata

**Date:** 11 - 12<sup>th</sup> July, 2020

**37. Multidisciplinary Approach to Manage the Lifestyle & Stress related Disorders in COVID-19 Pandemic Condition**

**Organized by:** Helpmate India Charitable trust, Madhavbagh Cardiac Care Mumbai, Fiton Healthcare Pvt Ltd Lucknow, Jyoti Herbals and Recycloopy Club.

**Date:** 12<sup>th</sup> July, 2020

**38. COVID-19 COMBATANT**

**Organized by:** Faculty Tick, India

**Date:** 6<sup>th</sup> July, 2020

**39. Awareness Quiz Contest on Pandemic COVID-19 (QCPC-2020)**

**Organized by:** Department of Microbiology, Bankura Sammilani College Bankura, West Bengal, India

**Date:** 5<sup>th</sup> July, 2020

**40. Public Health, Epidemics and State: A legacy of Colonial Bengal**

**Organized by:** Department of History Gokhale College Memorial College, Kolkata

**Date:** 27<sup>th</sup> June, 2020

**41. Pollution: national level E-quiz**

**E-quiz organized by:** Womens Christian College, Nagercoil, Tamil Nadu

**Date:** 2<sup>nd</sup> July, 2020

**42. Vedic Microbiology in today's world: Preparing for a new normal**

**Organized by:** Department of Microbiology, Dolphin (PG), Institute of Biomedical and Natural Sciences, Manduwala, Dehradun-248007, Uttarakhand, India

**Date:** 26<sup>th</sup> June, 2020

**43. Two –Day International Webinar On “Trajectory of COVID-19 Pandemic: Awareness, Treatment and Genomic Insight for Future Development**

**Organized by:** Department of Microbiology, Bankura Sammilani College Bankura, West Bengal, India

**Date:** 14<sup>th</sup> –15<sup>th</sup> June, 2020

**44. World Food Safety Day: Theme 2020-Food safety, everyone's business**

**E-quiz organized by** Help Mate India NGO (Lucknow-UP) and Recycloopy Club

**Date:** 07<sup>th</sup> June 2020

**45. Environment, Health and Covid-19 (EHC-2020): National webinar**

**Organized by:** Department of Chemistry and Geograpy, Sardar Vallabhbbhai Patel Arts and Science College, Ainpur, Tal. Raver, Dist. Jalgaon, Maharashtra.

**Date:** 18<sup>th</sup> June 2020

**46. National Conference on Emerging Trends in Plant Science Research**



**Poster Presentation (title):** Isolation and Characterization of Dominant microbes from Rhizospheric Soil of *Saussurea obvallata* (DC.) Edgew. (Brahma Kamal) of the Indian Himalayan Region

**Author(s):** Debasis Mitra, Dr. Anju Rani and Prof. (Dr.) Lok Man S. Palni

**Organized by:** Department of Botany & Biotechnology, Ravenshaw University, Cuttack - 753 003 Odisha

**Date:** 1 – 3<sup>rd</sup> March 2020

#### **47. Global Cleanup Congress: INDIA 2018**

**Title:** Lignocellulolytic microbial consortia for rice straw residue management

**Conference dates:** 22–24<sup>th</sup> October 2018

**Presented By:** Dr. P. Panneerselvam, ICAR-NRRI

**Author(s):** P. Panneerselvam, U. Kumar, A. Senapati, K. Haritha, A. Jahan, **D. Mitra**, Sagarika M.S., P.K. Nayak and A.K. Nayak

#### **48. 59<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI- 2018)**

**Title:** Analyzing 18S rRNA SSU hypervariable region of AM fungi using Illumina MiSeq platform

**Conference dates:** 09<sup>th</sup> December 2018

**Presented By:** A. Senapati, ICAR-NRRI

**Author(s):** Ansuman Senapati, Chidambaranathan Parameswaran, Annamalai Anandan, **Debasis Mitra** and Periyasamy Panneerselvam.

#### **49. Entrepreneurship Awareness Drive: Annual Business Model Competition**

**Organized by:** Entrepreneurship Cell, IIT KGP (IBMC) & DIT University Dehradun

**Date:** 9<sup>th</sup> Oct 2015.

#### **50. International Symposium on Horticulture: Priorities and Emerging Trends**

**ICAR-IIHR Bangaluru**

**Title:** Feasibility of substituting cocopeat with rice husk and saw dust compost as a nursery medium for growing vegetable seedlings.

**Authors:** **Debasis Mitra**, Komal Sharma, Ganeshamurthy A.N., Radha T.K., T. R. Rupa and G. Selvakumar.

**Date:** 6<sup>th</sup> Sept 2017

#### **51. Advancement in Biological Science**

**Title:** Effective utilization of fly-ash, produced by thermal power plants, in cultivated land by extracting its useful nutrients using *Pseudomonas sp.* isolated from cow dung.

**Author(s):** G, Rana; **D, Mitra**; M, Mondol; S, Acharya; T. Roy; A, Singha; M; Jana; & T, Mondal

**Organized by:**

Department of Biotechnology & Microbiology, Panskura Banamali College, W.B. India.

Biotech Research Society, India.

**Date:** 23<sup>rd</sup> March 2013; **Status:** Achieved top position in presentation.

## INTERNATIONAL COLLABORATION FOR REVIEW PAPER WRITING AND RESEARCH HELP (PERSONAL)

Sl	Name	Affiliation
1.	Dr. Snežana Anđelković	Senior Research Associates, Institut Za Krmno Bilje, Kruševac, <a href="#">Serbia</a>
2.	Dr. Tanja Vasić	Assistant Professor, Faculty of Agriculture, University of Niš, <a href="#">Serbia</a> Institut Za Krmno Bilje, Kruševac, Serbia
3.	Bahman Khoshru	Ph.D. Scholar, Department of Soil Science-Soil Biology and Biotechnology University of Tabriz, Tabriz, <a href="#">Iran</a>
4.	Dr. Ei Mon Myo	Deputy Director, Biotechnology Research Department (BRD), Ministry of Education, Kyaukse, Mandalay Region, <a href="#">Myanmar</a> .
5.	Prof. Beatriz Elena Guerra	Full Professor, University of Santander – UDES Santander, <a href="#">Colombia</a>
6.	Hanane Boutaj	Ph.D. Scholar, Department of Biology, Cadi Ayyad University, Marrakesh, <a href="#">Morocco</a>
7.	Dr. Claudia Krüger	Postdoctoral researcher, Institute of Botany, Academy of Sciences of the Czech Republic, Průhonice, <a href="#">Czechia</a> .
8.	Prof. Sergio de los Santos-Villalobos	Researcher, Laboratorio de Biotecnología del Recurso Microbiano, Instituto Tecnológico de Sonora, Ciudad Obregón, <a href="#">Mexico</a>
9.	Dr. Faride Noroozi shahri	Department of Production Engineering and Plant Genetics, Razi University, Kermanshah, <a href="#">Iran</a>
10.	Dr. Marika Pellegrini	Postdoctoral researcher, Department of Life, Health and Environmental Sciences, Università degli Studi dell'Aquila, 2 Palazzo Camponeschi, 67100 L'Aquila AQ, <a href="#">Italy</a>
11.	Djebaili Rihab	Laboratory of Microbiological Engineering and application, University of Brothers Mentouri, Constantine 1, Chaâbat Erssas Campous, Ain El Bey Road, Constantine 25000 <a href="#">Algeria</a>
12.	Adeyemi N. Olatunbosun	Department of Plant Physiology and Crop Production, University of Agriculture, Abeokuta, Abeokuta, <a href="#">Nigeria</a>
13.	Shokufeh Moradi	Faculty of Chemistry, University of Tabriz, Tabriz, <a href="#">Iran</a>
14.	Prof. Abdel Rahman Mohammad Al Tawaha	Full Professor, Plant Science, Department of Biological Science, Al-Hussein Bin Talal University, Ma'an, <a href="#">Jordan</a>
15.	Prof. Martha Viviana Torres Cely	Professor (Full), Instituto de Ciências Agrárias e Ambientais (ICAA), Universidade Federal de Mato Grosso (UFMT), Cuiabá, <a href="#">Brazil</a>
16.	Aniruddha Sarker	School of Applied Biosciences, College of Agriculture and Life, Sciences, Kyungpook National University, Daegu 41566, <a href="#">Republic of Korea</a> .
17.	Enas M. El-Ballat	Lecturer and Researcher of Microbiology, Department of Botany and Microbiology, Tanta University, <a href="#">Egypt</a>
18.	Prof. Mohamed A. El- Esawi	Professor, Botany Department, Faculty of Science, Tanta University, 31527 Tanta, <a href="#">Egypt</a> University of Cambridge Cambridge, <a href="#">United Kingdom</a>
19.	Prof. Maddalena Del Gallo	Professor (Full), Environmental Microbiology, Department of Life, Health and Environmental Sciences, University of L'Aquila, Coppito, 67010 L'Aquila, <a href="#">Italy</a>
20.	Prof. Erika Lorena Blanco C.	Professor, Universidad Nacional Experimental del Táchira, San Cristóbal, Táchira, <a href="#">Venezuela</a>
21.	Wiem Alloun	Department of Applied Biology, University of Constantine 1, Constantine, <a href="#">Algeria</a>
22.	Dr. Mayra C. García- Anaya	Laboratory of Microbiology (Cuahtemoc Unit), Research Center for Food and Development A.C., Hermosillo, <a href="#">Mexico</a>
23.	Vanessa Lopes Lira	Departamento de Micologia, Federal University of Pernambuco, Recife, <a href="#">Brazil</a>
24.	Keyvan valizadeh rad	Department of Soil Science, University of Tehran, Tehran, <a href="#">Iran</a>

*I hereby declare that all the information contained in this curriculum vitae is in accordance with facts or truths to my knowledge. I take full responsibility for the correctness of the said information*



(Signature)

Date: Nov, 2020

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Department of Microbiology