

Bio-Data

Dr. ANINDITA NAN,

M.Phil & Ph.D in Botany



Address for correspondence:

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Academic Area:

Botany

Profile:

An academically and technically qualified intensive field experience in Molecular Plant Pathology, Mycology, Ethnobotany, Plant Stress Biology, Conservation biology and Industrial Environmental Management including diverse training at national level. Ph.D. studies has been carried out in Molecular Plant Pathology and mycology, and has good knowledge of fungi, taxonomic studies of fungi, molecular techniques use in mycology and recent changes in fungal nomenclature, plant-pathogen interaction etc.

Research Experiences:

- ✚ More than 6 years of experience in working with plant-microbe interaction and fungal study.
- ✚ 2 years experience in working with plant-plant interaction i.e. allelopathic study in plants.
- ✚ 1year 4 months experience in analysis of arsenic, fluoride, nitrate, iron & chloride using ground water samples.
- ✚ 5 months experience in to study structural changes in five different species of plants by auto exhaust pollutants.

Instrumentation Skills:

Culture media preparation, isolation of microbes from plant and soil, bacterial & fungal culture techniques, plant inoculation with microbial pathogen, UV-visible Spectrophotometric measurements, SEM analysis, TLC method, DNA isolation, PCR technique, electrophoretic techniques etc.

Research Interests:

Proteomic approaches to study plant-pathogen interaction: Proteomic analysis of pathogen-responsive proteins from plants induced by pathogen and characterization of proteins from pathogen which are responsive in pathogenesis; Sustainable and eco-friendly disease management; Transgenic approaches to microbial disease resistance in crop plants: generating transgenic disease resistant crop lines; Microbial Diversity, Genomics and Taxonomy, Fungal metabolites study,

Academic Qualification:

Ph.D. in Science: Botany, University of Kalyani, Kalyani, W.B. Thesis title: Study of induced defense responses in *Raphanus sativus* L. (Radish) against *Alternaria* leaf spot and blight disease. This work was carried out in the Molecular Plant Pathology and Mycology Section, Department of Botany, University of Kalyani (2018 awarded).

M. Phil. in Science: Botany, Jiwaji University, Gwalior (M.P). Thesis title: Study of allelopathic potential of *Chenopodium album* L. on seed germination and seedling growth of *Brassica juncea* L.

Master of Science: Botany, Jiwaji University, Gwalior, M.P

Post graduate certificate Course: Industrial Environmental Management, Microbiology and Biotechnology, Indian Institute of Environmental & Biomedical Sciences, Ballygunge Science College, Calcutta University.

Working Experiences:

- ✚ Currently working as SACT-1 lecturer and serving the faculty post from 1st January 2020 and before that as a guest lecturer from 10th July 2019 in the Department of Botany, Mrinalini Datta Mahavidyapith. Birati, Kolkata till date.
- ✚ Also serving as a guest faculty post for Master degree level in Environmental Science (RBU Distance education- collaborated with MDM college, Birati) at RBU, Kolkata form October, 2022 till date (MDM college campus, Birati, Kolkata).
- ✚ Worked as an environmental analyst worked in Bharat Foundation-Scientific & Analytical Research Laboratory recognized by West Bengal Pollution Control Board, Job description: the analysis of arsenic, fluoride, nitrate, iron &

chloride using ground water samples from different Districts of West Bengal, September, 2005 to 26th October, 2006.

Seminar, Conference Presentation & Participation:

1. Delivered a research paper on "Induction of Systemic Acquired Resistance in *Raphanus sativus* (Radish) Against *Alternaria* Black Leaf Spot Disease And Variation in The Virulence of The Pathogen From Radish" in International Symposium on Role of Fungi and Microbes in the 21st Century- a Global Scenario, Indian Mycological Society in collaboration with Department of Botany, University of Calcutta, 20th - 22nd February, 2014.
2. Delivered a research paper entitled "Effect of *Alternaria* sp. culture filtrate on seed germination and seedling vigour of Radish (*Raphanus sativus*)" in "National seminar on Cryptogamic Botany, Amazing Cryptogams : Learning to Know, Department of Botany, University of Kalyani, 18th & 19th December, 2014.
3. Organized and participated in one day National Seminar on "PLANT Science in The Genomic Era", Department of Botany, University of Kalyani, 5th March, 2014.
4. Participated in The National Seminar on "Interdisciplinary Approaches in Science, Humanities and Culture", Kalyani University Research Scholars' Association, University of Kalyani, 28th – 29th May, 2014.
5. Attained seminar in "Food Security & Genetically Modified Crops", W.B. State Council of Science & Technology & Department of Biophysics, Molecular Biology and Bioinformatics, Calcutta University , 25th July' 2013, Kolkata.
6. Presented research paper (Poster) entitled "Induction of Systemic Acquired Resistance in *Raphanus sativus* (Radish) Against Dark Leaf Spot Disease by Pre-inoculation with *Alternaria* sp." in 3RD GLOBAL CONFERENCE, Plant Pathology For Food Security, January 10-13, 2012, Udaipur.
7. Attained seminar in "NANOTECH- 2008 "a national seminar on Nanotechnology sponsored by Madhya Pradesh Science & Technology, Bhopal.
8. Delivered seminar on "Study of structural changes in five different species of plants by auto exhaust pollutants" in XXXth Botanical Conference (Indian Botanical Society), National Seminar, on Emerging Trends in Plant Sciences: Biodiversity, Biotechnology, & Environmental Conservation, 28 – 30 Nov, 2007, School Studies in Botany, Jiwaji University, Gwalior (M.P.).

List of Publications:

Papers

- A. Nan and S. Chaudhuri. 2015. Induction of resistance in radish (*Raphanus sativus*) against *Alternaria* leaf spot and blight disease with an avirulent and a low virulent *Alternaria* sp. isolates. *Indian agriculturist*. 59 (2): 123-134.
- Abstracts
1. A. Nan and S. Chaudhuri, 2014. Effect of *Alternaria* sp. culture filtrate on seed germination and seedling vigour of Radish (*Raphanus sativus*). *Cryptogamic Botany, Amazing Cryptogams : Learning to Know*. 17-18.
 2. A. Nan and S. Chaudhuri. 2012. Induction of systemic acquired resistance in *Raphanus sativus* (radish) against dark leaf spot disease by pre-inoculation with *Alternaria* sp. 3rd Global Conference, Plant Pathology for Food Security. pp: 73.
 3. Abstract on "Study of structural changes in five different species of plants by auto exhaust pollutants" in National Seminar and Symposium of XXXth Botanical Conference (Indian Botanical Society), 28 – 30 Nov, 2007.

Knowledge of Computer application:

Completed Certificate Course on Ms-Office (Windows 98, Ms- Word, Ms- Excel, Ms- Power Point), HTML, DHTML, Photoshop, CorelDraw, MEGA-6, SPSS software, etc.

Date: 07.12.2022

Place: Kolkata