CURRICULUM VITAE

1. Name and full correspondence address: **Dr. NARAYAN CHANDRA MANDAL**
Professor of Botany, Visva-Bharati, Santiniketan
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2. Email(s) and contact number(s): mandalnc@rediffmail.com; mandalnc@visva-bharati.ac.in
Mobile number: +91-9434016026

3. Institution: Visva-Bharati

4. Date of Birth: 15.06.1962

5. Academic Qualification (Undergraduate Onwards)

Sl. No.	Degree	Year	Subject	University/Institution	Result/Class
1	B.Sc.	1982	Botany (Hons.)	The University of Burdwan	First
2	M.Sc.	1984	Botany (Microbiology Spl) Did a Project Under Prof. S. P. Sen	Kalyani University	First 1^{st} class first

6. Ph. D thesis title: "Carbon metabolism in *Rhizobium* sp. (*Cicer arietinum*)"

Guides's name: Prof. P. K. Chakrabartty (Retired)

Institute/University: Bose Institute under the University of Calcutta

Year of award: 1992

7. Work experience

S. no.	Positions held	Name of the Institute	From	To
1	Lecturer in Botany	Darjeeling Govt. College	01.03.1989	17.12.1993
2	Lecturer	Visva-Bharati	18.12.1993	28.02.1998
3	Sr. Lecturer	Visva-Bharati	01.03.1994	28.07.1998
3	Reader	Visva-Bharati	01.03.1998	26.07.2006
4	Professor	Visva-Bharati	27.07.2006	Till date

8. Professional Recognition/ Award/Prize/Certificate, Fellowship received by the applicant

S. No.	Name of award	Awarding agency	Year
1	CSIR Extramural award	CSIR	1986
2	Visiting Scientist	Wyoming University, USA	2001
3	President, East Zone	Indian Society of Mycology and Plant Pathology	2017, 2018 and 2020

9. Publications ***(List of papers published in SCI Journals and UGC-care journals, in year wise descending order)***

Sl. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	B. Bandyopadhyay, V Mandal and **N. C. Mandal**	Partial characterization of novel inulin-like prebiotic fructooligosaccharides of *Sechium edule* (Jacq.) Sw. (Cucurbitaceae) tuberous roots DOI: 10.1111/jfbc.13764	Journal of Food Biochemistry IF- 1.662	Not Assigned	e13764	2021
2.	S. Ghosh, N. Dutta, P. Banerjee, R.L. Gajbhiye, H. R. Sareng, P. Kapse, S.Pal, L. Burdelya, **N.C. Mandal,** V. Ravichandiran, A. Bhattacharjee, G. C. Kundu, A.V. Gudkov and M.Pal	Induction of monoamine oxidase A-mediated oxidative stress and impairment of NRF2-antioxidant defence response by polyphenol-rich fraction of *Bergenia ligulata* sensitizes prostate cancer cells in vitro and in vivo **https://doi.org/10.1016/j.freeradbiomed.2021.05.037**	Free Radical Biology and Medicine IF- 6.456	172	136-151	2021
3.	S. Sarkar, R. Chatterjee, A. Mukherjee, D. Mukherjee, **N. C. Mandal**, S. Mahato, S. Santra, G. V. Zyryanov, and A. Majee	Mechanochemical Synthesis and Antimicrobial Studies of 4-Hydroxy-3-thiomethylcoumarins Using Imidazolium Zwitterionic Molten Salt as an Organocatalyst. https://doi.org/10.1021/acssuschemeng.0c08975	ACS Sustainable Chemistry & Engineering IF- 7.632	9	5557-5569	2021
4.	S. Mandal, K.K. Saha and **N. C. Mandal**	Molecular insight into key eco-physiological process in bioremediating and plant-growth-promoting bacteria	Frontiers in Agronomy Doi: 10.3389/fagro.2021.664126	03	664126	2021
5.	R. Bhattacherjee, S. Mandal, Banerjee S, K.K. Saha, J. Sarkar,	Structural-genetic insight and optimization of protease production from a novel strain of *Aeromonas*	Archives of Microbiology (https://doi.org/10.1007/s00	203	635-641	2021

	D. Banerjee and **N. C. Mandal**	*veronii* CMF, a gut isolate of *Chrysomya megacephala*	203-021-02282-x) IF- 1.607			
6.	P.S. Gorai, R. Ghosh, S. Konra and **N. C. Mandal**	Biological control of early blight disease of potato caused by *Alternaria alternata* EBP3 by an endophytic bacterial strain *Bacillus velezensis* SEB1	Biological Control https://doi.org/10.1016/j.biocontrol.2021.104551 IF- 3.060	156	104551	2021
7.	K. Pramanik, S. Mandal, S. Banerjeea, A. Ghosh, T. K. Maiti and **N. C. Mandal**	Unraveling the heavy metal resistance and biocontrol potential of *Pseudomonas* sp. K32 strain facilitating rice seedling growth under Cd stress	Chemosphere (https://doi.org/10.1016/j.chemosphere.2021.129819) (**IF: 5.778**)	274	129819	2021
8.	N.C.Mandal	Phosphate solubilisation by plant growth promoting rhizobacteria and improvement of their potentials through biofilm formation	Journal of Mycopathological Research	58(4)	211-220	2021
9.	Mitra P, Khatua S, Mandal NC and Acharya K	Beneficial properties of crude polysaccharides from Termitomyces medius of West Bengal to scavange free radicals as well as boost immunity: a new report	Research Journal of Pharmacy and Technology	14(2)	1073-1078	2021
10.	S. Das, V. Mandal and **N. C. Mandal**	Broad-spectrum antimicrobial efficacy of *Pediococcus acidilactici* LAB001 against food spoilage and toxigenic bacteria and fungi	Journal of Food Processing and Preservation (Wiley) https://doi.org/10.1111/jfpp.15066 IF- 1.288	45	e15066	2020
11.	S. Chatterjee, R Ghosh, **N. C. Mandal**	Inhibition of biofilm- and hyphal-development, two virulent features of *Candida albicans* by secondary metabolites of an endophytic fungus *Alternaria tenuissima* having broad spectrum antifungal potential.	Microbiological Research https://doi.org/10.1016/j.micres.2019.126386 IF- 4.859	232	126386	2020
12.	A. Karmakar, P. Bandyopadhyay, S. Banerjee, **N. C. Mandal** and B. Singh	Synthesis, spectroscopic, theoretical and antimicrobial studies on molecular charge transfer complex of 4-(2-thiazolylazo) resorcinol (TAR) with 3,5-DNSA, picric acid and chloranilic acid.	Journal of Molecular Liquids https://doi.org/10.1016/j.molliq.2019.112217 IF- 5.065	299	112217	2020

13.	B. Bandyopadhyay, V. Mandal and **N. C. Mandal**	Bile salt hydrolyzing activities of two lactic acid bacteria from traditional fermented vegetable kinema of Darjeeling hills for potential hypocholesteromic probiotic use	Journal of Botanical Society of Bengal	74(1)	79-85	2020
14.	R. Ghosh, S. Barman and **N. C. Mandal**	Phosphate deficiency induced biofilm formation of *Burkholderia* on insoluble phosphate granules plays a pivotal role for maximum release of soluble phosphate	Scientific Reports https://doi.org/10.1038/s41598-019-41726-9 IF- 3.998	9	5477	2019
15.	S. Chatterjee, R. Ghosh and **N. C. Mandal**	Production of bioactive compounds with bactericidal and antioxidant potential by endophytic fungus *Alternaria alternata* AE1 isolated from *Azadirachta indica* A. Juss.	PloS ONE https://doi.org/10.1371/journal.pone.0214744 IF- 2.740	14	e0214744	2019
16.	A. Karmakar, S. Banerjee, B. Singh and **N.C. Mandal**	Study of hydrogen bonding interaction of acridine orange with different acceptor molecules by spectroscopic, theoretical, and antimicrobial studies	Journal of Molecular Structure https://doi.org/10.1016/j.molliq.2019.112217 IF- 2.463	1177	418-429	2019
17.	Ghosh R., Barman S., JGS P. K., Mandal N. C.	Biological activities of *Alternaria* sp. RL4 – a potent endophytic fungus associated with *Rauvolfia serpentina* L. Benth	Asian Journal of Pharmaceutical and Clinical Research Print ISSN: 0974-2441	11(11)	178-182	2018
18.	S. Barman, R. Ghosh and **N.C. Mandal**	Production optimization of broad spectrum bacteriocin of three strains of *Lactococcus lactis* isolated from homemade buttermilk	Annals of Agrarian Science https://doi.org/10.1016/j.aasci.2018.05.004	16	286-296	2018
19.	S. Barman, R. Ghosh, S. Sengupta and **N.C. Mandal**	Longterm storage of post-packaged bread by controlling spoilage pathogens using *Lactobacillus fermentum* C14 isolated from homemade curd	PLoS One https://doi.org/10.1371/journal.pone.0184020 IF- 2.740	12 (8)	e0184020	2017
20.	S. Barman, R. Ghosh, D. Dalal and	Suppression of leaf blight of *Ocimum sanctum* L. using lactic acid bacteria as novel biocontrol agent	Proceedings of Natl Acad Sci: India,	88	1389-1397	2017

	N.C. Mandal		Section B DOI 10. 1007/s40011-017-873-9, Springer India IF- 0.675			
21.	S. Basu Sarbadhikary, **N. C. Mandal**	Field application of two plant growth promoting rhizobacteria with potent antifungal properties	Rhizosphere http://dx.doi.org/10.1016/j.rhisph.2017.04.014 IF- 2.079	3	170-175	2017
22.	S. Basu Sarbadhikary, **N. C. Mandal**	Assessment of Antimicrobial and Antioxidant Activities of a Species of *Aspergillus*: An Endophytic Fungus of *Schima wallichii* (DC.) Korth. Leaves.	*Asian Journal of Pharmaceutical and Clinical Research*	10(9)	361-364	2017
23.	Dutta, S., Datta , J.K. and Mandal, N.C.	Evaluation of indigenous rhizobacterial strains with reduced dose of chemical fertilizer towards growth and yield of Mustard (*Brassica campestris)* under old alluvial soil zone of West Bengal, India	*Annals of Agrarian Science* doi.org/10.1016/j.aasci.2017.02.015			2017
24.	S. Basu Sarbadhikary, N. C. Mandal	Elevation of plant growth parameters in two solanaceous crops with the application of endophytic fungus	Indian J. Agric. Res., DOI: 10.18805/IJARe.A-4784			2018
25.	Ghosh, R., Barman, S., Mukherjee, R. and **Mandal, N. C.**	Role of phosphate solubilizing *Burkholderia* spp. for successful colonization and growth promotion of *Lycopodium cernuum* L. (Lycopodiaceae) in lateritic belt of Birbhum district of West Bengal, India	Microbiological Research http://dx.doi.org/10.1016/j.micres.2015.11.011 IF- 4.859	183	80-91	2016
26.	Ghosh, R., Barman, S., Khatu, S. and **Mandal, N. C.**	Biological control of *Alternaria alternata* causing leaf spot disease of *Aloe vera* using two strains of rhizobacteria	Biological Control http://dx.doi.org/10.1016/j.biocontrol.2016.03.001 IF- 3.060	97	102-108	2016
27.	Mitra,P. Mandal,N.C. and Acharya,K.	Phytochemical study and antioxidative property of ethanolic extract from *Termitomyces clypeatus*	Journal of Applied and Pharmaceutical Sciences Doi: 10.7324/JAPS	6	120-124	2016

28.	Mitra,P. Mandal,N.C. and Acharya,K.	Antioxidative Activity, Mycochemical, and Phenolic Profile of Termitomyces clypeatus, a Wild Edible Mushroom from the Lateritic Zone of West Bengal	Journal of Herbs, Spices & Medicinal Plants (Taylor & Francis), DOI: 10.1080/10496475.2016.1225621 IF- 0.91			2016
29.	Mitra,P. Mandal,N.C. and Acharya,K.	Polyphenolic extract of Termitomyces heimii: antioxidant activity and phytochemical constituents	J Verbr. Lebensm. DOI 10.1007/s00003-015-0976-2 (Springer) IF- 0.753			2016
30.	Barua, S., Banerjee, P.P., Sadhu, A., Sengupta, A., Chatterjee, S., Sarkar, S., Barman, S., Chattopadhyay, A., Bhattacharya, S., **Mandal, N.C.** and N. Karak.	Silver nanoparticles as antibacterial and anticancer materials against human breast, cervical and oral cancer cells	J Nanosci Nanotechnol DOI: 10.1166/jnn.2016.12636 IF- 0.872	16	1-9	2016
31.	Ghosh R., Barman S., Mukhopadhyay A., **Mandal N. C.**	Biological control of fruit-rot of jackfruit by rhizobacteria and food grade lactic acid bacteria	Biological Control http://dx.doi.org/10.1016/j.biocontrol.2014.12.020 IF- 3.060	83	29-36	2015
32.	Pal S, Bhattacharya A, Ali A, Mandal, NC, Mandal S and Pal M.	Chronic inflammation and Cancer: potential chemoprevention through nuclear factor kappa B and p53 mutual antagonism	Journal of Inflammation DOI: 10.1186/1476-9255-11-23	11	23-41	2014
33.	Goswami L., Sarkar S., Mukherjee S., Das S., Barman S., Raul P., Bhattacharyya P., **Mandal N. C.**, Bhattacharya S., Bhattacharya S. S.	Vermicomposting of Tea Factory Coal Ash: metal accumulation and metallothionein response in *Eisenia fetida* (Savigny) and *Lampito mauritii* (Kinberg)	Bioresource Technology DOI: 10.1016/j.biortech.2014.05.032 IF- 7.539	166	96-102	2014
34.	Mukherjee S., Barman S., **Mandal N. C.**, Bhattacharya S.	Anti-bacterial activity of *Achatina* CRP and its mechanism of action	Indian Journal of Experimental Biology (NISCAIR) IF- 0.783	52 (7)	692-704	2014
35.	Brahmachari G., Sarkar S., Ghosh R., Barman S., **Mandal**	Sunlight-induced rapid and efficient biogenic synthesis of silver nanoparticles using aqueous leaf	Organic and Medicinal Chemistry Letters	4 (18)	1-10	2014

	N. C., Jash S. K., Banerjee B. and Roy R.	extract of *Ocimum sanctum* Linn. with enhanced antibacterial activity				
36.	Mitra, P., Mandal N. C., Acharya, K.	Phytochemical characteristics and free radical scavenging activity of ethanolic extract of *Termitomyces microcarpus*	Der Pharmacia Lettre IF- 0.24	6(5)	92-98	2014
37.	Barman S., Ghosh R., Mandal N. C.	Use of Bacteriocin Producing *Lactococcus lactis* subsp. *lactis* LABW4 to Prevent *Listeria monocytogenes* Induced Spoilage of Meat	Food and Nutrition Science	5	2115-2123	2014
38.	Bhattacharya, S.S., Barman, S., Ghosh, R., Duary, R.K., Goswami, L. and **Mandal, N.C.**	Phosphate solubilizing ability of *Emericella nidulans* strain V1 isolated from vermicompost	Indian Journal of Experimental Biology IF- 0.783	51	840-848	2013
39.	Brahmachari, G., **Mandal, N.C.**, Rajiv Roy, Ghosh, R., Barman, S, Sarkar, S., Jash, S.K. and Mandal, S.	A new pentacyclic triterpene with potent antibacterial activity from *Limnophila indica* Linn. (Druce)	Fitoterapia IF- 2.906	90	104-111	2013
40.	Roy, S., Acharya, R., **Mandal, N.C.,** Barman, S., Ghosh, R. and Roy, R.	A comparative antibacterial evaluation of raw and processed Gunja (*Abrus precatorius*Linn.*)*seeds	*Ancient Science of Life*	32	20-23	2012
41.	Dutta, S., Datta, J. and **Mandal, N.C.**	2,4-Dichlorophenoxy acetic acid: a review	*Journal of Phytological Research*	25	16-25	2012
42.	Brahmachari, G., **Mandal, N.C.,** Jash, S., Roy, R., Mandal, L.C., Mukhopadhyay, A., Behera, B., Majhi, S., Mondal, A. and Gangopadhyay, A.	Evaluation of antimicrobial potential of two flavonoides isolated from Limnophila plants	Chemistry and Biodiversity IF- 2.039	8	1139-1151	2011
43.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Isolation and characterization of pediocin NV 5 producing Pediococcus acidilactici LAB 5 from vacuum-packed fermented meat product	Indian Journal of Microbiology IF- 1.870	51	22-29	2011

44.	Ghosh R., Pal R H., Mukhopadhyay, A. and **Mandal**	Phosphate solubilizing ability of some root-nodule bacteria from lateritic soil	Weslian Journal of Research	4	88-96	2011
45.	Debnath, M., Mandal, N.C. and Ray, S.	Effect of fungicide and insecticide on growth and enzyme activity of four cyanobacteria	Indian Journal of Microbiology IF- 1.870	52	275-280	2011
46.	Barman, S., Chakrabarti, H.S., Ghosh, R and **Mandal, N.C.**	Assessment of antimicrobial activity from Saxifraga ligulata	Phytomorphology IF- 0.62	61	36-41	2011
47.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Production and partialcharacterisation of an inducer-dependent novel antifungal compound(s) by *Pediococcus acidilactici* LAB 5	Jornal of the Science of Food and Agriculture IF- 2.463	93	2445-2453	2013
48.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Assessment of antibacterial activities of pediocin produced by *Pediococcus acidilactici* LAB5	*Journal of Food Safety* (Wiley-Blackwell) IF- 1.665	30	35-51	2010
49.	Roy, S.K., Bakshi, D and **Mandal, N.C.**	Effect of bavistin and blitox on root-nodule bacteria and the antagonistic effect of these bacteria on two plant pathogenic fungi	*Journal of Botanical Society of Bengal*	64(1)	39-46	2010
50.	Das, S. and **Mandal, N.C.**	Antifungal activity from lactic acid bacteria	J. Mycopathol. Res.	**48 (2)**	251-256	2010
51.	Mandal, P., Bakshi, D, Datta, J.K. and **Mandal, N.C.**	Distribution of glyoxylate pathway in different parts of fruit bodies of Gasteromycetous fungi	J. Mycopathol. Res.	**48 (1)**	105-109	2010
52.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Effect of prebiotics on bacteriocin production and cholesterol lowering activity of Pediococcus acidilactici LAB 5	World Journal of Microbiology and Biotechnology IF- 3.24	25	1837-1847	2009
53.	Mandal, N.C. and Chakrabartty, P.K.	Metabolosm of Hexane by Rhizobium sp. (Cicer arietinum L.) BICC 620	Journal of Phytological Research	22	127-132	2009
54.	Mandal, N.C. and Chakrabartty, P.K.	Carbon metabolism in Rhizobium sp. (Cicer arietinum L.) BICC 620 under anaerobic condition and in its bacteroids	Journal of Botanical Society of Bengal	63	65-68	2009

55.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Optimized culture conditions for bacteriocin production by *Pediococcus acidilactici* LAB5 and its characterization	*Indian Journal of Biochemistry and Biophysics* IF- 1.66	**45**	106-110	2008
56.	Mandal, V., Sen, S.K. and **Mandal, N.C.**	Detection, Isolation and Partial Characterization of Antifungal Compound(s) Produced by *Pediococcus acidilactici* LAB 5. *Natural Product Communications*	*Natural Product Communications* IF- 0.554	**2**	674-678	2007
57.	Debnath, M., Mandal, N.C. and Ray, S.	Survey of Cyanobacterial flora of Sagar Island, West Bengal	Journal of Botanical Society of Bengal	**61**	83-89	2007
58.	Sinhababu, A., Banerjee, A. and **Mandal, N.C.**	Pathological problem and its remedy of some fast-growing fuel wood tree-legumes	Journal of Phytological Research	**20**(2)	231-236	2007
59.	Bakshi,D and **Mandal, N.C.**	Activities of some catabolic and anabolic enzymes of carbohydrate metabolism during developmental phases of fruit bodies of *Dictyophora indusiata* and *Geastrum fornicatum*	Current Science IF- 0.756	**90**	1062-1064	2006
60.	Bakshi,D., Sinhababu, A., Mandal, V. and **Mandal, N.C.**	Change of carbon metabolic activity of *Rhizobium* under carbon starvation	*J. Plant Biochem. Biotechnol.* IF- 0.935	**15**	67-69	2006
61.	Bakshi D., Mukhopadhyay A., Sinhababu A., Pal S.C. and **Mandal N.C** (2006)	Survival, nodulation and nitrogen fixing ability of root nodule bacteria under different nutritional regimes	*Indian J. Exp. Biol*. IF- 0.783	**44**	918- 923	2006
62.	Mandal, P., Sinhababu, S.P. and **Mandal, N.C.**	Antimicrobial activity of saponins from *Acacia auriculiformis*	Fitoterapia IF- 2.906	76	462-465	2005

63.	**Mandal, N.C.** and Chakrabartty,P.K.	Enzymes of Carbohydrate metabolism in root nodule bacteria during growth on acetate	Journal of Basic Microbiology IF- 1.909	39	253-256	1999
64.	Ghosh, A.C. and **Mandal, N.C.**	Metabolism of pentose sugars in *Rhizobium leguminosarum* bv. *trifolii*	*Indian J. Exp. Biol.* IF- 0.783	36	1056-1057	1998
65.	Bandyopadhyay,N. **Mandal, N.C.** and Mandal, S.	Antimicrobial property of some taxa of Bignoniaceae	*J. Nat. Bot. Soc.* *Now* *Journal of Botanical Society of Bengal*	51	99-103	1997
66.	**Mandal, N.C.** and Chakrabartty, P.K.	Alcohol metabolism in free living *Rhizobium* sp. and *Bradyrhizobium* sp.	*Indian J. Exp. Biol.* IF- 0.783	35	401-404	1997
67.	**Mandal, N.C.** and Chakrabartty, P.K.	Succinate-mediated catabolite repression of enzymes of glucose meabolism in root nodule bacteria	Current Microbiology IF- 1.746	26	247-251	1993
68.	**Mandal, N.C.** and Chakrabartty, P.K.	Regulation of enzymes of glyoxylate pathway in root-nodule bacteria. **38:** 417-427.	*J. Gen. Appl. Microbiol.* IF- 1.442	38	417-427	1992
69.	**Mandal, N.C.** and Chakrabartty, P.K	Carbohydrate metabolic enzymes of *Rhizobium* during carbon starvation	*Indian. J. Exp. Biol.* IF- 0.783	30	804-897	1992
70.	**Mandal, N.C.,** Chakrabartty, P.K., Jash, S.S., Basu, K. and Bhattacharyya, P.	(1990) Metabolism of coumarin by *Curvularia lunata.* **28**: 189.	*Indian. J. Exp. Biol.* IF- 0.783	28	189	1990
71.	Bhattacharya, P., **Mandal, N.C.** and Chakrabartty, P.K.	Microbial conversion of Murrayanine to Mukoeic acid	*Current Science* IF- 0.756	58	815-816	1989
72.	**Mandal, N.C.** and Chakrabartty, P.K.	Enzymes of carbohydrate matabolism in fast-growing *Rhizobium* grown on hexoses or	*Indian. J. Biochem-Biophys.*	26	120-122	1989

		succinate	IF- 1.66			
73.	**Mandal, N.C.,** Mishra, A.K. and Chakrabartty, P.K.	Catabolic pathways versus growth phases of *Rhizobium*	*Indian J. Exp. Biol* IF- 0.783	27	91-93	1989

10. Selected Books Chapters

S. No.	Title	Author's name	Publisher	Year of Publication
1.	Beneficial Role of Plant Growth-Promoting Rhizobacteria in Bioremediation of Heavy Metal(loid)-Contaminated Agricultural Fields	Pramanik K, Banerjee S, Mukherjee D, Saha KK and **Mandal, NC**	Springer Nature	2021
2.	Bio-Based Technologies to Combat Emerging Environmental Contaminants	Das S, Goswami L, Bhattacharya SS and **Mandal, NC**	Elsevier	2021
3.	Endophytic Fungi: A Source of Novel Pharmaceutical Compounds	Samanta S, Ghosh S and **Mandal, NC**	Springer Nature	2021
4.	Trichoderma	Gorai, PS, Barman, S, Gond, SK and **Mandal, NC**	Elsevier	2020
5.	Serratia	Barman, S, Bhattacharya, SS and **Mandal, NC**	Elsevier	2020
6.	Stenotrophomonas	Ghosh, R and **Mandal, NC**	Elsevier	2020
7.	Fungal Bioagents in the Remediation of Degraded Soils	Banerjee, S and **Mandal, NC**	Elsevier	2020
8.	Use of Plant Growth–Promoting Burkholderia Species With Rock Phosphate–Solubilizing Potential Toward Crop Improvement	Ghosh, R and **Mandal, NC**	Elsevier	2020
9.	Endophytic Microbes and Their Role to Overcome Abiotic Stress in Crop Plants	Gorai, PS, Gond, SK and **Mandal, NC**	Elsevier	2020
10.	Diversity of Chitinase producing bacteria and their possible role in plant pest control	Banerjee, S and **Mandal, NC** In Microbial Diversity in Ecosystem Sustainability and biotechnological Applications, pp 457-491, (*Eds).* Satyanarayan T, Das S and Johri B., Springer-Nature (Singapore). **Print ISBN**978-981-13-8486-8 **Online ISBN**978-981-13-8487-5	Springer Nature Singapore	2019
11.	Botanicals and Gut Microbiome.	Bandopadhyay, B. and Mandal, N.C.	Environica, vol. 2 pp. 128-138.	2018

			Levant Books, Kolkata. ISBN: 9789 384106973	
12.	Yeast as a cell factory	Ghosh, R and **Mandal, NC**	Modern Trends in Microbial Biotechnology Levant Books	2012
13.	Development of antifungal agents for controlling fungal infections in human	Mandal, N.C.	Modern Trends in Microbial Biotechnology Levant Books	2012
14.	New health potentialities of orally consumed microorganisms	Mandal, V and **Mandal, NC**	Springer-Verlag Berlin Heidelberg DOI 10.1007/978-3-642-20838-6_7	2011
15.	Bacteriocins and Antifungal Compounds for Food Preservation	Mandal, V and **Mandal, NC**	VDM Verlag	2010
16.	Fungal Biotechnology	Mandal, N.C.	New Central Book Agency In Biodiversity & Biotechnology (eds) S. Ray & A. Ray, New Central Book Agency, pp. 155-171.	1996

Some of the Recent Participations in various Academic Programmes:

i. External expert member of DBT Bio-Safety committee of NIT, Durgapur 2015
ii. President (East Zone) of Indian Society of Mycology and Plant Pathology 2017, 2018, 2020
iii. November 2018: Chaired a session in the International Symposium entitled "International Conference on Development of Cultural Tourism in and around Santiniketan and Birbhum" November 16-18, 2018

iv. 20-21st December, 2018: Expert of technical committee in Regional Science Congress, DST, Govt. of West Bengal, SKV University, Purulia.

v. 01st March 2019: Expert of technical committee in 26th West Bengal State Science and Technology Congress, Science City, Kolkata.

vi. 22-23rd February, 2019: Delivered a invited lecture and chaired a session in the International Symposium entitled "Current Avenues of Microbial and Plant Resources", University of Gourbanga, Malda, WB. Title of lecture: Phosphate deficiency induced biofilm formation of *Burkholderia* on insoluble phosphate granules plays a pivotal role for maximum release of soluble phosphate
vii. Delivered E.J.Butler Memorial Lecture in an International Symposium organised by Indian Mycological Society at Science City, February 6-8, 2020
viii. Delivered an Invited Lecture 'Evaluation of anti-fungal and anti-candidal potential of secondary metabolites of an endophytic fungus Alternaria tenuissima isolated from Ocimum tenuiflorum L.' in

the National Seminar RFPIDM-2020, organised by The Department of Botany, Banaras Hindu University, February 28-29, 2020

ix. Acted as Judge in the Regional Congress of Science and Technology, West Zone organised by The University of Burdwan, November, 2020.

x. 56 th Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on 'Emerging discoveries in Microbiology' on 7th to 10th of December, 2015 at JNU, New Delhi.

xi. Key note speaker in a National Seminar "Man and Microbe" organized by the Department of Microbiology, Raiganj University during 28-29 March, 2016

xii. Chaired a session in the above National Seminar

xiii. Invited speaker in Indian Science Congress and acted as Judge in Poster Session, Chaired a Oral Session in the same Congress, January 3-7, 2017

xiv. Acted as a Resource Person in a short term Training Programme "Recent Trend In Industrial Biotechnology" organized by NIT Durgapur, November 14-18, 2017

xv. External expert member in the B.O.S. of Burdwan-, University of Gour Banga-, Kalyani- and Aliya-Universities at various times

Administrative Activities:

i. Director, PSNS (Physical Education, Sports, National Service and Students Welfare) since 14.10.2017

ii. Chairman, Admission Co-ordination Cell, Visva-Bharati for the year 2015

iii. Chairman, Institutional Animal Ethics Committee since 2019

iv. Joint Co-Ordinator, DST-PURSE Programe of Visva-Bharati

v. Co-Ordinator, UGC-DRS Programme, Department of Botany, VB

vi. Chairman, Accommodation Committee, VB.

vii. Member in many other committees viz., Selection committee, Research Board, Employee's- and Students-grievence redressal committee, Departmental Promotional Committee, Reservation related matters of Admission Process 2014-2018, Hostel Wardenship etc.

11. Any other information (maximum 500 words):

My research contributions are basically: (i) Exploration of metabolic behaviour and exploitation of rhizobia and other plant growth promoting rhizobacteria including cyanobacteria for improving agricultural productivity in one hand and (ii) assessment of potentials of phytochemicals and lactic acid bacteria for controlling harmful microorganisms on the other hand. I have isolated and identified powerful phosphate solubilizing bacteria, deciphered their solubilisation mechanism, identified the importance of biofilm formation on P-granules through quorum sensing system by the potent rhizobacteria. My group has purified and identified the bacteriocin NV-5 from a strain of *Pediococcus acidilactici* LAB5 and nisin-Z like peptide producing strains of lactic acid bacteria with broad spectrum of antipathogenic activity including plant pathogenic- and spoilage fungi. We have also assessed the antimicrobial activities of the phytochemicals from several plants. Recently we have successfully applied several food grade lactic acid bacteria for control of post-harvest spoilage of orange, jackfruit and several other crops. We have evaluated the biopesticidal as well as biofertilizer potential of various PGP bacteria in field trials. Presently my group is working on exploiting the chitinase and β-glucanase functions from various sources to develop potential control strategies in crop plants. Application of heavy metal tolerant rhizobacteria for combating the ill effects of heavy metals on crop plants is also our focus of present study. All the works are well documented in my publications. I regularly host Indian Academy of Science Summer Fellows in my laboratory. Along with my research, I developed a good number of well trained man-power every year by my teaching activities. I have published about 90 research papers in different journals and have

supervised (awarded eighteen Ph.D. students, one submitted, six more are working for their Ph.D., three post-doc fellows and more than fifty M.Sc. dissertations).

Narayan Chandra Mandal