

CURRICULUM VITAE

DR PAWAN K DADHEECH

Professor

Microbial Diversity, CyanoTech and CyanoTox Laboratory (MDCC)

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Current Research Interests:

- Micro algal and Cyanobacterial diversity and systematics; Algal Biotechnology; Cyanotoxins

Teaching and Research Experience: 36 years

Administrative Experience:

- Dean, School of Life Sciences, Central University of Rajasthan, Bandarsindri, Ajmer (2019-2022).
- Head, Department of Microbiology, Central University of Rajasthan, Bandarsindri, Ajmer (2013-2016; 2019-2022)
- Chief Warden, Central University of Rajasthan, Bandarsindri, Ajmer (2019-2021)

International Scientific Recognition:

- Senior Scientist Fellowship, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, 16775 Stechlin-Neuglobsow, Germany (from May 2011 to February 2013) to carry out research on molecular phylogeny of cyanobacteria.
- Guest Scientist at Leibniz-Institute of Freshwater Ecology and Inland Fisheries, 16775 Stechlin-Neuglobsow, Germany (seven stays between 2002 and 2018 in the frame of different cyanobacteria projects on molecular biology).
- Organizing Secretary of UNESCO-TWAS sponsored workshop on “*Arthrospira* Mass Production in Rural Areas of Tropical Countries” at Department of Botany, Government College, Ajmer-305 001 (Rajasthan), India from 22-26 October 2007.

Research Projects Completed/Ongoing:

- Co-Principal Investigator in the UNESCO-TWAS approved research project under the scheme of International Basic Science Program (ISBP) 2005-2007 sanctioned to IGB, Germany.
- Co-Principal Investigator in Department of Biotechnology, New Delhi, India Project entitled “Study of cyanobacterial diversity in hot desert ecosystem for the production of biopolymers” sanctioned to Birla Institute of Scientific Research, Statue Circle, Jaipur (2003-2006).
- PI in Department of Biotechnology, New Delhi, India Project entitled “Developing low water demanding cultivation system of algae for Rajasthan“. (2017-2018).
- PI in State-DST, Rajasthan Project entitled “Bioprospects of extreme-tolerant cyanobacteria inhabit sambhar lake of Rajasthan“. (Ongoing).

Awards/Honors/Membership:

- Fellow, Indian Botanical Society (FBS)
- Life Member, Society for Plant Research
- Life Member, Phycological Society India
- Life Member, Association of Microbiologists of India (AMI)
- Young Scientist Fellowship, State DST, Jaipur, India (1995)
- Junior Research Fellowship, University Grants Commission, New Delhi, India (1984-1986)

Academic and Scientific Recognitions:

- Member: Executive Council and Academic Council (Central University of Rajasthan)
- Member of Editorial Board and Reviewer of journals of International repute.

Personal Details:

- Nationality: Indian
- Date of birth: July 7, 1961
- Marital status: Married

Publications on Algal and Cyanobacterial Systematics and Biotechnology (Pawan K Dadheech):

- Tomer AK & **Dadheech PK** (2020). Bioprospecting antioxidants in some non-heterocystous filamentous cyanobacteria inhabit water bodies of semi-arid Rajasthan in India. *Vegetos*, 33(3), 601-609. (Scopus)
- Tomer AK, Rahi T, Neelam, DK & **Dadheech PK** (2019). Cyanobacterial extract-mediated synthesis of silver nanoparticles and their application in ammonia sensing. *Int Microbiol* 22: 49-58.
- Neelam DK, Agrawal A., Tomer AK., Bandyopadhyaya S, Sharma A, Jagannadham, MV, Mandal CC & **Dadheech PK** (2019). A *Piscibacillus* sp. isolated from a soda lake exhibits anticancer activity against breast cancer MDA-MB-231 cells. *Microorganisms* 7(2), 34. (IF: 4.78)
- Neelam DK, Agrawal A, Tomer AK & **Dadheech PK** (2018). Characterization, phylogenetic analysis and potential applications of heterotrophic bacteria inhabit sand dunes of Thar Desert, India. *J Pure Appl Microbiol* 12: 1787-1798. (Scopus & WoS indexed & UGC listed)
- Tomer AK, Neelam, DK., & **Dadheech, PK** (2018). Pigments profiling of non-heterocystous filamentous cyanobacterial taxa (Oscillatoriales) inhabited in biological crusts and soda lake. *Vegetos* 31: 43-50. (Scopus & UGC listed)
- **Dadheech PK**, Selmezy GB, Vasas G., Padišák J, Arp W, Tapolczai K, & Krienitz L (2014). Presence of Potential Toxin-Producing Cyanobacteria in an Oligo-Mesotrophic Lake in Baltic Lake District, Germany: An Ecological, Genetic and Toxicological Survey. *Toxins* 6: 2912-2931.
- **Dadheech PK**, Mahmoud H, Kotut K & Krienitz L (2014). *Desertifilum fontinale* sp. nov. (Oscillatoriales, Cyanobacteria) from a warm spring in East Africa, based on conventional and molecular studies. *Fottea* 14: 129-140.
- **Dadheech PK**, Glöckner, G, Casper, P, Kotut K, Mazzoni CJ, Mbedi S and Krienitz L. (2013). Cyanobacterial diversity in the hot spring, pelagic and benthic habitats of a tropical soda lake. *FEMS Microbiology Ecology* 85: 389-401.
- Krienitz L, **Dadheech PK**, Fastner J & Kotut K (2013). The rise of potentially toxin producing cyanobacteria in Lake Naivasha, Great African Rift Valley, Kenya. *Harmful Algae* 27: 42-51.
- **Dadheech PK**, Casamatta DA, Casper P & Krienitz L. (2013). *Phormidium etoshii* sp. nov. (Oscillatoriales, Cyanobacteria) described from the Etosha Pan, Namibia, based on morphological, molecular and ecological features. *Fottea* 13: 235-244.
- **Dadheech PK**, Abed RMM, Mahmoud H, Krishna Mohan M & Krienitz L (2012). Polyphasic characterization of cyanobacteria isolated from desert crusts, and the description of *Desertifilum tharense* gen. et sp. nov. (Oscillatoriales). *Phycologia* 51: 260-270.

- **Dadheech PK**, Kotut K, & Krienitz (2012). *Haloleptolyngbya alcalis* gen. et sp. nov., a new filamentous cyanobacterium from the soda lake Nakuru, Kenya. *Hydrobiologia* 691: 269-282.
- Krienitz L, Bock C, **Dadheech PK** & Pröschold T (2011). Taxonomic reassessment of the genus *Mychonastes* (Chlorophyceae, Chlorophyta) including the description of eight new species. *Phycologia* 50: 89-106.
- **Dadheech PK**, Ballot A, Casper P, Kotut K, Novelo E, Lemma B, Pröschold T & Krienitz L (2010). Phylogenetic relationship and divergence among strains of *Arthrospira* (Oscillatoriales, Cyanobacteria) of African, Asian and American origin deduced by 16S-23S ITS and phycocyanin operon sequences. *Phycologia* 49: 361-372.
- **Dadheech PK**, Krienitz L, Kotut K, Ballot A & Casper P (2009). Molecular detection of uncultured cyanobacteria and aminotransferase (AMT) domains for cyanotoxin production in sediments of different Kenyan lakes. *FEMS Microbiol Ecol* 68: 340-350.
- Stüken A, Campbell RJ, Quesada A, Sukenik A, **Dadheech PK** & Wiedner C (2009). Genetic and morphologic characterisation of four putative cylindrospermopsin producing species of the cyanobacterial genera *Anabaena* and *Aphanizomenon*. *J Plankton Res* 35: 465-480.
- Ballot A, **Dadheech PK**, Haande S & Krienitz L (2008). Morphological and phylogenetic analysis of *Anabaenopsis abijatae* and *Anabaenopsis elenkinii* (Nostocales, Cyanobacteria) from tropical inland water bodies. *Microbial Ecology* 55: 608-618.
- Ballot A, **Dadheech PK** & Krienitz L (2004). Phylogenetic relationship of *Arthrospira*, *Phormidium*, and *Spirulina* strains from Kenyan and Indian waterbodies. *Algological Studies/Arch. Hydrobiol.* 113: 37-56.
- **Dadheech PK** & Srivastava P (2002). Observations on genus *Radiococcus* (Chlorophyceae), new to India. *J. Bom. Natl. His. Soc.* 91 (4): 158-160.
- **Dadheech PK** (1994) Biochemical characterization of gamma-rays induced resistant strains of *Eutetramorus planctonicus* (chlorococcalean alga). In: *Algal Biotechnology in the Asia-Pacific Region*, Ed. Phang et al., University of Malaya, Malaysia, 170-175.
- **Dadheech PK**, Srivastava P & Nagpal V (1992). *Scytonema crassum*, a cyanophycean taxon new to India. *Phykos* 31(1&2): 121-124.
- Srivastava P, Nagpal, V & **Dadheech PK** (1991). Amino acid and protein composition of certain chlorococcales after treatment with mutagens II. Chemical mutagens. *Phykos* 30 (1&2): 139-145.
- Srivastava P, Nagpal, V & **Dadheech PK** (1991). Amino acid and protein composition of certain chlorococcales after treatment with mutagens I. Physical mutagens. *Phykos* 30 (1&2): 129-137.
- **Dadheech PK** & Srivastava P (1989). *Eutetramorus planctonicus* (Korch) Bourr. Under ultraviolet radiation. In: *Advances in Applied Phycology-II*. Today and Tomorrow's Printers and Publishers, p 113-122.
- **Dadheech PK** & Srivastava P (1989). Biochemical analysis of fractionally gamma irradiated cultures of *Eutetramorus planctonicus*. *Ad. Plant Sc.* 2(1): 93-99.
- **Dadheech PK** & Srivastava P (1988). Effect of ultrasound waves on growth and morphology of *Eutetramorus planctonicus*. *Res. J. Pl. Environ.* 4(1): 47-52.
- **Dadheech PK** & Srivastava P (1986). *Eutertramosus plactonicus* (Korch) Bourr-a new record from India. *Curr. Sci.* 55(21): 1095-1096.

Book Chapter:

- Anand N, Thajuddin N & **Dadheech PK** (2019). Cyanobacterial Taxonomy: Morphometry to Molecular Studies. In *Cyanobacteria* pp. 43-64. Academic Press.
- Krienitz L, Bock, C, **Dadheech PK**, Kotut K, Schagerl M (2016). Cyanobacteria and green algae – a resource for biotechnology. In: Ed. Schagerl M., *Soda Lakes of East Africa*, Springer