

CURRICULUM-VITAE



Dr. Devendra Kumar, Assistant Professor Medical Microbiology

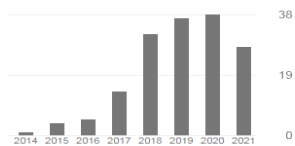
FOLLOWING

INDIAN AGRICULTURAL RESEARCH INSTITUTE, PUSA, NEW DELHI
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Life Sciences Microbiology ...

TITLE	CITED BY	YEAR
<input type="checkbox"/> Extraction and purification of C-phycoyanin from <i>Spirulina platensis</i> (CCC540) D Kumar, DW Dhar, S Pabbi, N Kumar, S Walia Indian Journal of Plant Physiology 19 (2), 184-188	152	2014
<input type="checkbox"/> Protocol optimization for enhanced production of pigments in <i>Spirulina</i> D Kumar, N Kumar, S Pabbi, S Walia, DW Dhar Indian journal of plant physiology 18 (3), 308-312	13	2013
<input type="checkbox"/> Similarity analysis of <i>Spirulina/Arthrospira</i> strains on the basis of phycoyanin operon locus (<i>cpcB-IGS-cpcA</i>) and 16S rRNA gene sequences D Kumar, DW Dhar, P Nehra, N Kumar NISCAIR-CSIR, India	4	2017
<input type="checkbox"/> Green algae biomass cultivation, harvesting and genetic modifications for enhanced cellular lipids P Kumar, D Kumar, P Nehra, PK Sharma Microbial Biotechnology, 119-140	3	2018
<input type="checkbox"/> Extraction and profiling of lipids of isolated strain <i>Chlorella fw-12</i> by GC-MS P Kumar, D Kumar, N Priyanka, PK Sharma Int J Curr Microbiol App Sci 6 (5), 1801-1810	3	2017
<input type="checkbox"/> Nutraceutical aspects and Physiological parameters of cyanobacterial strain <i>spirulina</i> Devendra Kumar Y Vimala Ashu Priyanka Nehra Neha Dhillon		2020

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Co-authors

EDIT

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(Microbiology)

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Google Scholar
https://scholar.google.com/citations?view_op=list_works&hl=en&user=z3z_FgwAAAAJ

Career Objective:

To work with utmost sincerity and dedication in a progressive institute and university where I can work with growth and development, where I can explore my whole knowledge as researcher and can gain knowledge as learner and with great zeal and enthusiasm.

Research/ Teaching Experience:

Designation/Project	Institute	Duration		Years	Nature of work
		From	To		
Assistant Professor Department of Microbiology	CCS University, Campus, Meerut, Uttar Pradesh, India	Sep 2017	Till now	-	Teaching for M.Sc. Microbiology and Medical Microbiology
Post Doc Research Scholar at Department of Microbiology	Kurukshetra University Kurukshetra Haryana, India	2015	2017	2 years	Maintain and Culturing of Blue green Algae (<i>Spirulina</i> , <i>Synechocystis etc.</i>) and Green Algae. Also doing their Molecular, Metabolic Engineering, Bioinformatics and Biochemical aspects. Research on Algal Biofuel....
Senior Research Fellow in NFBSFARA Project entitled, "Common basis of defense induction in rice and mustard against sucking and gall insects Pests" under the supervision of Dr. S. Subramanian, Principal Scientist, Division of Entomology	IARI Pusa New Delhi	01-08-2013	30-09-2014	1 year	Study of systematic biology and symbionts, culturing of mustard and rice Aphids
Senior Research Fellow in NAIP project entitled "Value Chain on production of Food grade Nutraceuticals for use as Natural Antioxidants and Food colorants" under the supervision of Dr. Dolly Wattal Dhar, Professor, CCUBGA (Microbiology).	IARI Pusa New Delhi	01-04-2009	31-12-2012	4 years	Maintain and Culturing of Blue green Algae (<i>Spirulina</i>) and Green Algae. Also doing their molecular and biochemical aspects. Research on Biofuel....

Lecturer	Bhagwati College, Meerut	13.09.2007	31.03.2009	2 year	Taking classes of M.Sc. and B.Sc. Microbiology and Biotechnology and practical work
Guest Lecturer (Biochemistry)	CCS University, Campus, Meerut	Oct-2007	June-2008	1 years	Taking classes of M.Sc. and practical work

Students Mentored as a Supervisor

Two M.phil

Ten M.Sc. (4 Gold Medal)

Educational Qualification:

Ph.D. in Microbiology from Kurukshetra University Kurukshetra, Haryana. Research work done under the supervision of Dr. Dolly Wattal Dhar (Co-Supervisor), Professor, Division of Microbiology, IARI, Pusa, New Delhi with thesis entitled “**The Relationship of *Spirulina* strains inferred from phycocyanin operon locus (cpcB-IGS-cpcA) and 16S rRNA gene sequences**”.

M.Phil. in Microbiology (62%) from CCS University, campus, Meerut with thesis entitled “**Microbiological evaluation of non parentral formulations and environmental monitoring from manufacturing area**”.

M.Sc. in Microbiology (64%) from CCS University, Campus, Meerut.

B.Sc. in Chemistry, Botany and Zoology (61%) from CCS University, Meerut.

Intermediate (60%) from S.D. Inter College Muzaffarnagar, U.P.

High School (58%) from S.D. Inter College Muzaffarnagar, U.P.

Specialized Training/Refresher Course:

- ❖ **Refresher Course** on “**Advances in Molecular biology**” at Department of Microbiology & Cell Biology, Division of Biological Sciences, **Indian Institute of Science, Bengaluru**. Sponsored by Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences, India, Allahabad from 8-22 December 2017.
- ❖ Three days Workshop cum training on “**Tools and Techniques for Bioinformatics**” organized by AKMU, IARI, New Delhi held on 12-14 March, 2018.
- ❖ National Training on Bioinformatics “**Computational Tools for Microbial Research**” at “**National Bureau of Agriculturally Important Microorganisms**”, Kusmaur, Maunath

bhanjan, 275101, 19-30 November-2013.

- ❖ **Convener** for training entitled “ Production Technology of Blue Green Algae-*Spirulina* At Center for Conservation and Utilization of Blue Green Algae, IARI,New Delhi.

Workshop:

- ❖ One day Workshop on “**Big Data in Genomics**” organized by Center for Computational Biology, IIIT-Delhi held on 4th February 2017.

Honors/Award/Recognition:

- ❖ **Best Teacher Award** in ICRIABAS – 2021 organized by New Age Mobilization, 30-31 March 21.
- ❖ **Young Scientist Award in National Conference ICIESSD-2019** organized by SVPUA&T, Meerut.
- ❖ Invited for a lecture in “**Training on *Spirulina* cultivation and processing for advancement of skills amongst entrepreneurs**” at CCUBGA, organized by ZTM-BPD, Indian Agricultural Research Institute, PUSA, New Delhi.
- ❖ **Award of Honour in Shikshak Samman Samaroh**, organized by District Yoga Association, Muzaffarnagar, 20-May- 2018.
- ❖ **Editorial Board Member** in Journal of Biodiversity and Conservation (Reg. No.: 40391605866/2016).
- ❖ **Best oral presentation award in National Conference** organized by Guru Ghasidas Vishwavidyalaya, Central University, Bilaspur, Chhattisgarh, India. 21-23 March 2017.
- ❖ **Best Poster presentation award in International Conference on Biotechnology : A Rendezvous with Basic Science for Global Prosperity (BTBS-2012). 25th to 27th December 2012.**
- ❖ Qualified ICAR National Eligibility Test (**ICAR-NET**) – **2016(I)** for Lecturership.
- ❖ Qualified Uttarakhand State Eligibility Test (**UK-SET**) – **2012**, for Lecturership.
- ❖ Qualified **GATE** (Graduate Aptitude Test in Engineering) 2007 (**Percentile- 96.6**).

Microbiological Skills:

- ❖ Isolation, Biochemical Characterization & Identification of Bacteria, Algae & Fungi
- ❖ Isolation & Purification of Protein from Microbes
- ❖ Antibiotic Production & Susceptibility Testing of Microbes
- ❖ Isolation & Selection Mutant
- ❖ **Isolation, Purification, mass production and maintenance of marine microbes (Green algae & Blue Green Algae), Maintenance of Germplasm.**

Biotechnological Skills:

- ❖ Experience in PCR, RT-PCR, DNA and RNA extraction, PAGE and basic techniques.
- ❖ Exposure to different Molecular Marker analyses and gene cloning
- ❖ Biochemical analysis.
- ❖ Genomics and Proteomics.
- ❖ **Handling Photo Bioreactor.**

Bioinformatics Skills:

- ❖ NCBI database: Sequences retrieve, Sequence submission, Sequence Blast
- ❖ Experience in Molecular biology software (Mega-5, Bio-Edit and T-COFFEE)
- ❖ Sequence alignment, Phylogenetic Tree, Dendrogram
- ❖ Online Software Primer 3 for PCR and RT-PCR Primer Designing
- ❖ High quality annotated sequences of 16S rRNA and *cpcB-IGS-cpcA* gene of *Spirulina* strains have been **submitted in the NCBI** nucleotide database (First author).

Computer Skills:

- ❖ MS-Office, **Statistical Analysis (SPSS, Sigma Plot).**

Paper/Article Published:

International

- ❖ **Kumar Devendra**, Nehra Priyanka, Kumar, Saxena Sudhir, Dhar Wattal Dolly (2017). **Quantification and purification of C-Phycocyanin from Cyanobacterial strain *Anabaena* and *Phormidium*. *Indian Journal of Experimental Biology*. **SCI indexed IF: 2.0****
- ❖ **Kumar Devendra**, Nehra Priyanka, Kumar Neeraj, Dhar Wattal Dolly (2017) **Similarity analysis of *Spirulina* strains on the basis of *Phycocyanin operon locus (cpcB-IGS-cpcA)* and *16S rRNA gene sequences*. *Indian Journal of Biotechnology*. Vol-16: 84-90
SCI indexed IF: 0.892**
- ❖ Kumar Praveen, **Kumar Devendra**, Nehra Priyanka and Sharma P.K. (2017). **Extraction and profiling of Lipids of isolated strains *Chlorella fw-12* by GC-MS. *International journal of Current Microbiology and applied Sciences*. Vol.6 (5): **IF-2.068**. <https://doi.org/10.20546/ijcmas.2017.605.196>**
- ❖ Kumar Praveen, **Kumar Devendra**, Shahi S.K. and Sharma P.K. (2015). **Growth rate Measurement and Morphometry of isolated Microalgae from north India region. *International journal of Scientific Research* Vol.4 (7): 399-402. **IF-3.02****
- ❖ **Kumar Devendra**, Kumar Neeraj ,Pabbi Sunil, Dhar Wattal Dolly and Walia Suresh (2014) **Extraction and purification of C-Phycocyanin from *Spirulina platensis* (CCC540)**. *Indian Journal of Plant Physiology*. Vol.19 (2): 184-188. NAAS RATING (6.0) Springer. DOI 10.1007/s40502-014-0094-7

- ❖ **Kumar Devendra**, Kumar Neeraj ,Pabbi Sunil, Dhar Wattal Dolly and Walia Suresh (2013). *Protocol optimization for enhanced production of natural colors in Spirulina*. *Indian Journal of Plant Physiology*. Vol.18 (3): 308-312. NAAS RATING (6.0) Springer. DOI 10.1007/s40502-013-0045-8
- ❖ Kumar Roshan, **Kumar Devendra**, Nehra Priyanka, Ahmad Showkat, Ali Sajid and Pattnaik Sasmita (2013) *Cellulolytic activity of actinomycetes isolated from Areraj region, Bihar*. *International journal of Current Discoveries and innovations*.
- ❖ **Kumar Devendra**, Kumar Neeraj, Dhar Wattal Dolly and Nehra Priyanka (2017). Gas Chromatography- Mass Spectrometry analysis of total lipid and fatty acid content of *Spirulina/Arthrospira* strains. *International journal of Biochemistry*. Vol.199: 537-543 Impact Index: 4.52. Photon Ignitor: ISJN44385728D814915062017

National

- ❖ **Kumar Devendra**, Kumar Neeraj ,Pabbi Sunil, Dhar Wattal Dolly and Walia Suresh (2014) *Morphological parameters and Selected growth attributes in Spirulina strains*. *Annals of Biology* Vol.30 (2): 400-408. NAAS RATING (4.0).

Oral Presentations in International/National Seminar

- ❖ **Devendra kumar**, Praveen kumar, Priyanka Nehra (2017). Mass Production and Nutraceuticals aspects of cyanobacterial strain: *Spirulina*. National conference on Biotechnology: Exploring through innovations (BETI). Department of Biotechnology, Central University of Haryana. Mahendergarh, Haryana. November 13-14, 2017.
- ❖ **Devendra kumar** (2018). **Extraction of nutraceuticals biomolecules from cyanobacterial strain: Spirulina**. National conference on Advances in agricultural and allied sciences, organized by Aditya Agricultural Education Group, Department of Biotechnology, Beed , Maharashtra , October 4-6 ,2018.

Abstract contributed in Conferences/Seminar

- ❖ **Devendra Kumar**, Sudhir Saxena, Nirbhay Kumar Singh, Sunil Pabbi, Dolly Wattal Dhar and Suresh Walia(2009) Comparative studies amongst selected strains of *Spirulina/Arthrospira*. Abstract (GM-026) In :Conference on **Third Golden Era of Microbiology**, Organized by **Association of Microbiologists of India** at National Chemical Laboratory and Department of Microbiology, University of Pune, December 15-18.
- ❖ **Devendra Kumar**, Sudhir Saxena, Neeraj Kumar, Sunil Pabbi, Suresh Walia, Dolly Wattal Dhar(2010) Protocol optimization for mass production of *Spirulina*. Abstract: In: **A National Seminar on Microbiological Approaches to Environmental Sustainability (MICROENVIRO-2010)** organized by Department of Microbiology and Food Science and Technology, GITAM institute of Science, GITAM UNIVERSITY, 21-22 December, 2010 Visakhapatnam Andhra Pradesh.

- ❖ Dhar D W, **Kumar D**, Saxena S, Pabbi S, and Walia S (2011) Screening and mass production of cyanobacterial genus *Spirulina*. Poster (P-079) presented in **4th Congress of the International Society for Applied Phycology**, June 19-24, 2011; at **Halifax, Canada** ; Organized by International Society for Applied Phycology and National Research Council, Canada.
- ❖ **Devendra Kumar**, Dolly Wattal Dhar, Sudhir Saxena and Sunil Pabbi (2010) Screening and mass production of cyanobacterial genus *Spirulina*: A potential food supplement, Poster presented in **National Conference of Plant Biodiversity and Energy Resources vis a vis Biotechnological Tools for Sustainability**, Department of Botany, Chaudhary Charan Singh University, Meerut-250004; December 25-26, 2010
- ❖ **Devendra Kumar**, Dolly Wattal Dhar, Sudhir Saxena, Suresh Walia and Sunil Pabbi (2012) Similarity analysis of *Spirulina* strains on the basis of Phycocyanin operon locus (cpcB-IGS-cpcA) and 16S rRNA gene sequences, Poster presented in **International Conference on Biotechnology: A Rendezvous with Basic Science for Global Prosperity (BTBS-2012)**. NASC Complex **IARI, PUSA, New Delhi**; December 25-27, 2012.
- ❖ Sudhir Saxena, **Devendra Kumar**, Dolly Wattal Dhar and Sunil Pabbi (2012). Single step Chromatography for Purification and recovery of C-Phycocyanin from *Anabaena* and *Phormidium* *sps.* Poster presented in **International Conference on Biotechnology: A Rendezvous with Basic Science for Global Prosperity (BTBS-2012)**. NASC Complex **IARI, PUSA, New Delhi**; December 25-27, 2012.
- ❖ **Devendra Kumar**, Sudhir Saxena, Sunil Pabbi, Suresh Walia and Dolly Wattal Dhar (2012). Single step Chromatography for Purification and recovery of C-Phycocyanin from *Spirulina (Arthrospira) platensis* **International Algal Summit- Algae for Sustainable Development**, jointly organized by TERI, CSIR and ICAR; February 21-22, 2012.
- ❖ **Devendra Kumar**, Sudhir Saxena and Dolly Wattal Dhar (2015). Gas Chromatography- Mass spectrometry analysis of total lipid and fatty acid content of *Spirulina/Arthrospira* strains. National Conference on Microbes in Extreme Environments: Diversity and Translational Applications (MEEDATA:2015), organized by School of Life Sciences, H.N.B. Garwal University, Srinagar; October 30-31, 2015.
- ❖ **Devendra Kumar**, Priyanka Nehra and Neeraj kumar (2017). World's Healthiest Superfood: *Spirulina*. Bio-Epoch, an annual scientific symposium, School Of Biotechnology, Jawaharlal Nehru University. March 23-24, 2017.
- ❖ Praveen kumar, **Devendra kumar**, Priyanka Nehra and Pradeep Kumar Sharma (2017). Algal biomass production and lipid extraction for biodiesel feedstock. National conference on Biotechnology: Exploring through innovations (BETI).

Department of Biotechnology, Central University of Haryana. Mahendergarh, Haryana. November 13-14, 2017.

- ❖ Priyanka Nehra **Devendra Kumar**, and Praveen Kumar kumar (2017). Microalgae biomass utilization for biodiesel development. *International conference on Advances in agricultural and Biodiversity Conservation for Sustainable development*. C.C.S. University Meerut. October 27-28, 2017.
- ❖ Priyanka Nehra, **Devendra kumar** and Praveen kumar (2018). Effect of heavy metals (Pb and Zn) on selected growth parameters of Cyanobacteria. National seminar on “Recent Technological Trends in Environmental Issues: Needs and Challenges”, organized by Department of science, Krishna College, Bijnor, January 21,2018.
- ❖ Priyanka Nehra, **Devendra kumar** and Praveen kumar (2018). Prospective of algae as a feedstock for biodiesel. National seminar on “Recent Technological Trends in Environmental Issues: Needs and Challenges”, organized by Department of science, Krishna College, Bijnor, January 21,2018.
- ❖ Priyanka Nehra, Baljeet Singh Saharan, **Devendra kumar** (2018). “**Cyanobacterial isolates from Basmati Rice for Plant Growth Promoting Attributes**” National conference on Advances in agricultural and allied sciences, organized by Aditya Agricultural Education Group, Department of Biotechnology, Beed , Maharastra , October 4-6 ,2018.
- ❖ Soumya Sucharita Mohanty, Kumanand Tayung, **Devendra kumar** (2018). “**A comparative study on the effects of neem cake treatment and chemical treatment against root knot nematode**” National conference on Advances in agricultural and allied sciences, organized by Aditya Agricultural Education Group, Department of Biotechnology, Beed , Maharastra , October 4-6 ,2018.

Book Chapters

- ❖ **Devendra kumar**, Anuj kumar, Priyanka Nehra. **Microalgae: A Potential Source of Biofuel**. Microbial advances in Agriculture and Human health. Published by **Apple academic Press, CRC Press Canada, a Taylor & Francis group**.
- ❖ **Devendra kumar**, Anuj kumar, Sudhir Saxena, Priyanka Nehra. **Spirulina: A Potential and miracle Source of future food**. Microalgae for sustainable future. Published by Nova Scientific Publication, USA.
- ❖ **Devendra kumar**, Praveen kumar, Neeraj Kumar, Priyanka Nehra. **Value chain on production of food grade nutraceuticals from Cyanobacteria: Spirulina**. "Microbial Biotechnology: application in agriculture and environment". Published by Springer Nature.
- ❖ Praveen kumar, **Devendra kumar**, Priyanka Nehra and P.K. Sharma. **Green Algae Biomass Cultivation, Harvesting and Genetic Modifications for Enhanced Cellular Lipids** "Microbial Biotechnology: application in agriculture and environment". Published by Springer Nature. https://doi.org/10.1007/978-981-10-7140-9_6

Personal Details:

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Nationality : Indian
Language Known : Hindi and English
Caste : General
Marital Status : Married
Hobbies : Reading books and Singing.

References:

- ❖ **Dr. (Mrs) Dolly Wattal Dhar**, Professor and Principal scientist in CCUBGA (Microbiology), IARI, Pusa Campus, New Delhi 110012. Email: dollywattaldhar@yahoo.com
- ❖ **Dr. G.Abraham**, Senior scientist in CCUBGA(Microbiology), IARI, Pusa Campus, New Delhi 110012. Email:gabraham1@rediffmail.com
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Declaration:

I, hereby declare that all the above statements are true and the complete to the best of my knowledge and belief and nothing has been conceal/distorted.

Date:
Place:

Devendra Kumar

(Devendra Kumar)