

CURRICULUM VITAE



Name: Dr Abhai Kumar

Position- Associate Professor

Department of Botany, Faculty of Science

**Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur,
Uttar Pradesh, India, PIN-273009**

Specialization: Nutraceuticals, Metagenomics, Plant System Biology

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Educational Qualifications			
Year	Degree	Name of Institute/Board	Marks
2008	Ph.D. (Biotechnology)	CSIR-Indian Institute of Toxicology Research, Lucknow	Awarded
2002	M.Sc. (Biotechnology)	Deen Dayal Upadhyay Gorakhpur University, Gorakhpur	73%
2000	B.Sc. (Zoology, Botany Chemistry)	Deen Dayal Upadhyay Gorakhpur University, Gorakhpur	65%
1996	Higher Secondary	Uttar Pradesh Secondary Education Board	74% (Distinction in Physics, Biology)
1994	High School	Indian Council for Secondary Education	76% (Distinction in Four Subjects)
Professional Experience			
Duration	Employer Name	Post held	Nature of work
2022- till date	Department of Botany, DDU Gorakhpur University, Gorakhpur, India	Associate Professor	Research & Teaching

2019-2022	Department of Neurology, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India	Principal Research Scientist	Research
2015-2018	Institute of Science, Banaras Hindu University, Varanasi, India	DST Young Scientist	Research & Teaching
2012-15	Institute of Medical Sciences Banaras Hindu University, Varanasi, India	UGC-Dr. D. S. Kothari Postdoctoral Fellow	Research & Teaching
2008-2010	University of Pittsburgh, USA	Postdoctoral Fellow	Research

Awards & Honors

1. CSIR- Junior Research Fellowship awarded in 2003; Shyama Prasad Mukherjee Fellowship conducted from CSIR-UGC New Delhi, India
2. Graduate Aptitude Test in Engineering (**GATE**) **score-99.29; All India Rank-28** in 2003 conducted by Indian Institute of Technology, Madras, India
3. UGC-Dr. D. S. Kothari Postdoctoral Fellowship Award in 2012 awarded by University Grants Commission, India
4. Young Scientist Award in 2015 by Department of Science and Technology, India
5. Best Research Paper Award in International Conference in Cognition and Health in 2016 from Department of Psychology, Banaras Hindu University, Varanasi, India
6. INSA-Visiting Scientist Fellowship Award in 2017 from National Academy

of Sciences, New Delhi

7. Best Scientific Presentation Award in International Conference ‘Trends in Biochemical and Biomedical Research. Advances and Challenges-2018’ from Feb 13-15, 2018 from Department of Biochemistry, Banaras Hindu University, Varanasi, India
8. Best Scientific Paper Presentation Award on June 2, 2023 from Global Indian Scientists and Technocrats Forum, New Delhi, India

Academic affiliations and memberships

Indian Epilepsy Society, India
Indian Society of Cell Biology, India
American Association for Cancer Research (AACR), U.S.A.
European Federation of Biotechnology, Europe
International Society of Infectious Disease, USA

Academic affiliation to Scientific International journals

Editorial Board, International Journal of Food and Nutrition (IF-4.1)
Associate Editor, Frontiers in Bioscience (IF-3.6)
Ad-hoc reviewer in European Journal of Cancer Research (IF-4.3)
Ad-hoc reviewer in Food and Chemical Toxicology (IF-2.3)
Ad-hoc reviewer in Expert Review in Proteomics
Ad-hoc Reviewer in 3-Biotech

Administrative and Social Responsibilities

1. Secretary, Mahamana Malaviya Mission, BHU Unit from 2019-2022 at Banaras Hindu University
2. Coordinator, Centre of Genomics and Bioinformatics, from 2022-2023 at Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, India
3. Member, Scrutiny Examination Committee Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, India
4. Member Task force Vigilance Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, India
5. Secretary, Chand Foundation Gorakhpur India
6. Member, The Prem Rawat Foundation, USA
7. Facilitator, Peace Education Program, TPRF, USA

Research Project Funded:

Title of Project: To find specific markers for mild cognitive impairment vulnerable to Alzheimer's disease by diffusion tensor imaging, plasma proteomics and peripheral antioxidant enzymes status. **Funding Agency:** Science and Engineering Board, Govt. of India, India, **Total Cost of Project-33.20 lakhs;** **Time- 2015-2018; Principal Investigator:** Dr. Abhai Kumar

Title of Project: To find the association of Vitamin D level and white matter integrity on cognitive functions of mild cognitive impaired subjects in North India **Funding Agency-** Cognitive Science Research Initiative, Department of Science and Technology, Govt. of India, **Total cost of project- 21.24 lakh; Time- 2019-2021 Principal Investigator-** Dr. Abhai Kumar

Title of Project- Proteomics based approaches for identification of Biomarker for typhoid fever **Funding Agency-** University Grants Commission, Govt. of India, **Total cost of project- 23.16 lakh; Time- 2012-2015 Principal Investigator-** Dr. Abhai Kumar

List of Best publications

1. Yadav S, **Kumar A***, Singh S, Ahmad S, Singh G, Khan AR, Chaurasia RN, Kumar D. NMR based Serum metabolomics revealed metabolic signatures associated with oxidative stress and mitochondrial damage in brain stroke. *Metab Brain Dis*; 2024;39(2):283-294 **IF-3.19,***
Corresponding Author
2. Dwivedi A, Srivastava M, Srivastava A, **Kumar A**, Chaurasia RN, Srivastava SK. A Eu³⁺doped functional core-shell nanophosphor as

- fluorescent biosensor for highly selective and sensitive detection of dsDNA. *J Photochem Photobiol B* 2023;249:112802 **IF-3.19**
3. **Abhai Kumar**, Ashish Verma and Rameshwar Nath Chourasia, Vitamin D and inflammatory cytokines association in mild cognitive impaired subjects. *Neuroscience Letters*. 2023; 795; 137044 **IF-3.19,* Corresponding Author**
 4. Kumar U, **Kumar A***, Singh S, Arya P, Singh SK, Chourasia RN, Singh A, Kumar D. An elaborative NMR based plasma metabolomics study revealed metabolic derangements in patients with mild cognitive impairment: a study on north Indian population. *Metabolic Brain Dis*. 2021; 36(5):957-968; **IF-3.8 *Corresponding Author**
 5. Prajval Pratap Singh, Rakesh Tamang, Manoj Shukla, Abhishek Pathak and Anshika Shrivastava, Pranav Gupta, Alay Bhatt, Abhishek Shrivastava, Sudhir Upadhyay⁸, Ashish Singh, Sanjeev Maurya, Purnendu Saxena, Vanya Singh, Akhilesh Kumar Chaubey, Dinesh Kumar Mishra, Yashvant Patel, Rudra Kumar Pandey, Ankit Shrivastava, Nargis Khanam, Debashruti Das, Audditiya Bandopadhyay, Urgyan Chorol, Nagarjuna Pasupuleti, Sachin Kumar Shrivastav, Satya Prakash, Astha Mishra, Pavan Kumar Dubey, Ajit Parihar, Priyoneel Basu, Jaison Sequira, Lavanya KC, Vijayalaxmi, Thadiyan Parambil Ijinu, Dau Dayal Aggarwal, Anand Prakash, Kiran Yadav, Anupam Yadav, Vandana Upadhyay, Gunjan Mukim, Ankan Bhandari, Ankita Ghosh, Akash Kumar, Vijay Kumar Yadav, Kriti Nigam, Abhimanyu Harshey, Tanurup Das, Deepa Devadas, Surendra Pratap Mishra, Ashish, Abhay Kumar Yadav, Nitish Kumar Singh, Manpreet Kaur, Sanjay Kumar, Nikhil Srivastava, Charu Sharma, Ritabrata Chowdhury, Dharmendra Jain, **Abhai Kumar**, Ritesh Shukla, Raghav Kumar Mishra, Royana Singh, Yamini B Tripathi, Vijay Nath Mishra, Mohammed S. Mustak, Niraj Rai, Sumit Kumar Rawat, Prashant Survajhala, Keshav K Singh, Chandana Basu Mallick, Pankaj Shrivastava and Gyaneshwer Chaubey. Estimation of real-infection and immunity against SARS-CoV-2 in Indian populations. *Science*; **10 April 2021; IF-47.5**
 6. Pathak A, Chaurasia RN, **Kumar A**, Mishra VN, Joshi D. Frontotemporal dementia: an unusual cause. *Int Journal of Neurosciences*. . 2020;130(7):736-738; **IF-2.5**

7. **Kumar A***, Smita Singh, Anup Singh, Ashish Verma and Vijay Nath Mishra. Diffusion tensor imaging based white matter changes and level of antioxidant enzymes for early diagnosis for mild cognitive impairment . **International Journal of Neuroscience**. 2019; 129(3):209-216, **IF-2.5, * Corresponding Author**
8. **Kumar A***, Smita Singh, Ashish Chaurasiya, Aanchal Singh. Implication of Pre-clinical biomarker in mild cognitive impairment (MCI) and Alzheimer's disease: Promises and future challenges. **Research Report**. 2018; 2: e1-e16, **IF-2.7 *Corresponding Author**
9. **Kumar A***, Smita Singh, Ashish Verma and Vijay Nath Mishra. Proteomics based identification of differential plasma proteins and changes in white matter integrity as markers in early detection of mild cognitive impaired subjects at high risk of Alzheimer's disease. **Neuroscience Letters**. 2018; 676:71-77, **IF-3.0 * Corresponding Author**
10. Kumar D, **Kumar A***, Singh S, Tilak R . Candidemia induced pediatric sepsis and its association with free radicals, nitric oxide and cytokine level in host. **Journal of Critical Care**. 2015; 30(2):296-303, **IF-3.7 *Corresponding Author**
11. **Kumar A***, Singh Smita and Gopal Nath. Proteoglycomics and disease markers: Promises and Future Challenges. **Advance Tech in Biology and Medicine**. 2014; 2:113, **ISSN: 2379-1764, IF-3.4, *Corresponding Author**
12. **Kumar A***, Singh Smita, Ahirwar SK, and Gopal Nath. Proteomics based identification of plasma proteins and their association in host-pathogen interaction in chronic typhoid carriers. **International Journal of Infectious Diseases**. 2014; 19:59-66. **IF-6.7,*Corresponding Author**
13. Lal K, Mani U, Pandey R, Singh N, **Singh AK**, Patel DK, Singh MP, Murthy RC. Multiple approaches to evaluate the toxicity of the biomass fuel cow dung (kanda) smoke. **Ecotoxicology and Environmental Safety**. 2011;74(7):2126-32. **IF-6.2**

14. Miki K, **Kumar A**, Yang R, Killeen ME, Delude RL. Arginase-1 decreases enterocytes inducible nitric oxide synthase activity during systemic inflammation. **American Journal of Physiology-Gastrointestinal and Liver Physiology**. 2009; 297:840-848 IF-6.9
15. **Kumar A**, Upadhyay G, Modi DR, Singh MP. The involvement of secondary signaling molecules in cytochrome P-450 1A1-mediated inducible nitric oxide synthase expression in benzo(a)pyrene-treated rat polymorphonuclear leukocytes. **Life Sciences**. 2007; 81(23-24):1575-84 IF-6.1
16. **Kumar A**, Patel S, Gupta YK, Singh MP. Involvement of endogenous nitric oxide in myeloperoxidase mediated benzo (a) pyrene induced polymorphonuclear leukocytes injury. **Molecular and Cellular Biochemistry**. 2006; 286(1-2):43-51 IF-3.8
17. Upadhyay G, **Kumar A**, Singh MP. Effect of silymarin on pyrogallol- and Rifampicin induced hepatotoxicity in mouse. **European Journal of Pharmacology**. 2007; 565(1-3): 190-201 IF-5.0
18. Patel S, Singh V, **Kumar A**, Gupta YK, Singh MP. Status of antioxidant defense system and expression of toxicant responsive genes in striatum of maneb- and paraquat-induced Parkinson's disease phenotype in mouse: mechanism of neurodegeneration. **Brain Res**. 2006; 1081(1):9-18 IF-4.4
19. Upadhyay G, Singh AK, **Kumar A**, Prakash O, Singh MP. Resveratrol modulates pyrogallol-induced changes in hepatic toxicity markers, xenobiotic metabolizing enzymes and oxidative stress **European Journal of Pharmacology**. 2008; 596(1-3):146-52; IF-5.0
20. Singh V, Rastogi N, Sinha A, **Kumar A**, Mathur N, Singh MP. A study on the association of cytochrome-P450 1A1 polymorphism and breast cancer risk in north Indian women. **Breast Cancer Research and Treatment**. 2007; 101(1):73-81 IF-4.8
21. Gaur RK, Singh AP, **Singh AK**, Singh M, Rao GP, Mishra LC. Serological. Identification of sugarcane yellow leaf luteovirus (SCYLV) from cane stalk juice. **National Academy Science Letters**. 2003; 26,5-6; ISSN 2250-1754, IF-0.7

Book Chapters:

1. **Abhai Kumar**, Smita Singh and Anil Kumar Chauhan (2015) 'Gut Microbiome and Functional Foods: Health benefits and Safety Challenges'. *Genomics, Proteomics and Metabolomics in Nutraceuticals and Functional Foods* John Wiley & Sons, Page 489-503; **ISBN- 978-0-8138-1402-5**
2. **Abhai Kumar** and Smita Singh.(2018) 'Association of Diabetes in onset of Dementia In Elderly Population: An Overview' *Nutritional And Therapeutic Intervention Of Diabetes And Metabolic Syndrome (2nd Edition)*. Academic Press: Elsevier, Page-105-111; **ISBN-9780128120194**
3. Shruti Mishra, Vipin Rai, **Abhai Kumar**, Sushil K Aggarwal and Subash C Gupta (2019) 'Molecular Diagnostic in Pancreatic Cancer' *Molecular Diagnostic in Cancer Patients*. Springer Nature, Page-157-163 **ISBN- 978-981-13-5877-7**
4. **Abhai Kumar** and Smita Singh (2019) "The benefit of Indian Jaggery over sugar on human health" *Dietary Sugars, Salt and Fat on Human Health*. Elsevier/Academic Press Page 347-355. **ISBN-9780128169186**
5. **Abhai Kumar**, Smita Singh and Rameshwar Nath Chaurasia (2020) Role of Metals in Neurodegeneration. *Metal Toxicology Handbook*. CRC Press (Taylor and Francis Group) Page 13-22; **ISBN- 9781138345249**
6. **Abhai Kumar**, Rameshwar Nath Chaurasia, Smita Singh, Anup Singh (2020) Vitamin D and neuroprotection in elderly population. *Antioxidant and Functional Foods for Neurodegenerative disorders: Uses in Prevention and Therapy*. CRC Press (Taylor and Francis Group) **ISBN-978-0-36733-322-5**
7. **Abhai Kumar** and Smita Singh (2020) 'Role of glycans in neurodegeneration' *Glycome: The sweet enigma*; Apple Academic Press, USA , Page-314-344, **ISBN-9781774638279**
8. **Abhai Kumar**, Smita Singh and Rameshwar Nath Chaurasia (2022) The connection between diet, gut microbes and cognitive decline.

- Microbiome, Immunity, Digestive health and Nutrition. Elsevier Academic Press, USA, Page- 265-271 **ISBN: 978-0-12-822238-6**
9. **Abhai Kumar**, Smita Singh, Varun Kumar Singh and Rameshwar Nath Chaurasia (2022). Epidemiology and Management of Neurocysticercosis: An Update. Viral, Parasitic, Bacterial and Fungal Infection. Elsevier Academic Press, USA, Page- 1-8 **ISBN: 978323857307**
 10. **Kumar, A.**, Singh, S., Chaurasia, R.N. The connection between diet, gut microbes, and cognitive decline Microbiome, Immunity, Digestive Health and Nutrition: Epidemiology, Pathophysiology, Prevention and Treatment, 2022, pp. 265–271 **ISBN: 9780128222393**

Books Edited/ Authored

1. **Current Challenges and Management of Disease in Elderly Population. 2020** (Eds: Abhai Kumar) : Nova Science Publisher, USA (ISBN- 978-1-53617-304-8)
2. **Antioxidant and Functional Foods for Neurodegenerative disorders: Uses in Prevention and Therapy” 2021** (Eds: Abhai Kumar & Debasis Bagchi): CRC Press, UK (ISBN-978-0-36733-322-5)
3. **A Review on Diverse Neurological Disorder; Pathophysiology, Molecular Mechanism & Therapeutics.2024** Eds Abhai Kumar et al. **ISBN-13: 978-0323957359**

Invited Lectures

1. **Abhai Kumar** and Smita Singh (Invited Talk). Oxidative Stress and Vitamin D deficiency in elderly population. National Conference on Interdisciplinary Advancement in Biochemistry (NCIAB-2019). March 28-29, 2019, Department of Biochemistry, Rammanohar Lohia Avadh University, Ayodhya, India
2. **Abhai Kumar**. (Invited Talk). Role of Vitamin D in neurodegeneration and cognitive decline in elderly population. 4th International Conference

- on Nutraceuticals and Chronic diseases (INCD-2019) at Indian Institute of Technology Guwahati, Assam, India September 23-25, 2019
3. **Abhai Kumar**, Institute of Neurology, Banaras Hindu University, Varanasi, India, Virtual Invited Lecture entitled “Ageing and Inflammation in Parkinson's Alzheimer's and other degenerative disorders-An Overview” in the Session #130 “Neurodegeneration by Diverse Environmental and Physical Stressors: Protection by Structurally Diverse Nutraceuticals and Functional Foods” (A SHIFT20 Program organized by the Institute of Food Technologists (IFT), Chicago, IL, USA, during July 13-15, 2020
 4. **Abhai. Kumar** delivered a Virtual Invited lecture entitled “Gastrointestinal Ecology: Application of Nutraceuticals on Microbiome, Nutrient Absorption, Competent Digestion, and Immune Health” in the Session “Nutraceuticals and Functional Foods in Boosting the Multi-Faceted Roles of Gut Microbiome to Enhance Digestive Health and Immune Competence”. Institute of Food Technologists (IFT), Chicago, IL, USA (IFT 2021) Session during July 19-23, 2021
 5. **Abhai Kumar**. Nutrition and Mental Health. Digvijay Nath Degree College, Gorakhpur, 14 December, 2023; Gorakhpur, India
 6. **Abhai Kumar**. Bioscience to Bioeconomy. Mahatma Gandhi Post Graduate College. 14 January, 2023; Gorakhpur, UP, India
 7. **Abhai Kumar**, Smita Singh and Dinesh Kumar. NMR based Serum metabolomics revealed metabolic signatures associated with oxidative stress and mitochondrial damage in brain stroke and the role of Withania Somnifera in stroke management. 22-23 February, 2024; INCD-2024. Panjab University, Chandigarh, India

Paper Presentations in conference

1. Involvement of endogenous nitric oxide in myeloperoxidase mediated benzo(a)pyrene induced polymorphonuclear leukocytes injury. **Abhai Kumar**, Suman Patel, Y K Gupta, M. P. Singh. XXIX meeting of All India Society of Cell Biology and Symposium on Gene to Genome: Environment and Chemical Interaction. January 17-20, 2006, at Industrial Toxicology Research Centre, Lucknow.
2. Involvement of endogenous nitric oxide and myeloperoxidase in benzo(a)pyrene mediated polymorphonuclear leukocytes injury. **Kumar A**, Gupta YK, Singh MP International Symposium on Diet in Causation & Prevention of Cancer and XXX Annual Conference of Environmental Mutagen Society of India” Dec 5-8, 2005 at Lucknow.

3. Status of Antioxidant Defense System and Expression of Toxicant Responsive Genes in Striatum of Maneb and Paraquat Induced Parkinson's Disease Phenotype in Mouse. Patel S, Singh V, **Kumar A**, Gupta YK, Singh MP. 38th Annual Conference of Indian Pharmacological Society (IPS - 2005), March 3-5, 2005, at Chennai
4. Proteomics approach towards identifying biomarker of exposure against organophosphate pesticide exposure in *Dorsophila*. Sharma A, **Kumar A**, Singh M P, Saxena D K, Chowdhuri D K. 31st All India Cell Biology Conference. Varanasi, December 17-19, 2007.
5. Identification of differentially expressed protein in plasma of benzo(a)pyrene exposed rats. **Abhai kumar** and Wasudev Gade. International Conference on Recent Advances in Cancer Research: Therapeutics to Chemoprevention. Central University of Gujarat, Gandhinagar, 8-9 February 2012.
6. The interplay between inducible nitric oxide synthase and Arginase-1 during systemic Inflammation of septic shock. **Abhai Kumar**, Runkaun Yang and Gopal Nath. International Indo-US symposium on cardiovascular diseases and drug discovery, Banaras Hindu University, December 4-5, 2012
7. Proteomics based identification of differentially expressed protein in plasma of chronic Typhoid carriers. **Abhai Kumar**, Smita Singh, Suneel Kumar Ahirwar and Gopal Nath. International Conference on Health, Environment and Industrial Biotechnology; November 21-23, 2013; Biosangam, Allahabad
8. National Symposium and Workshop on "Molecular and Ayurvedic Biology of Inflammation" at Molecular Biology Unit, Institute of Medical Sciences, Banaras Hindu University, Varanasi, from Feb 7-9, 2014
9. **Abhai Kumar**, Smita Singh, Gopal Nath. Proteomics based approaches for development of new diagnostic marker for typhoid Fever. March 27-28, LUSCON-2014, BBAU University, Lucknow.
10. **Abhai Kumar** and Smita Singh. Maneb –and paraquat- induced Parkinson's disease model reveals involvement of Antioxidant defense system and toxicant responsive genes in neurodegeneration.

International Conference on Recent Advances in Cognition and Health, December 19-21, 2014. Department of Psychology, Banaras Hindu University, Varanasi

11. **Abhai Kumar** and Smita Singh Prevalence of mild cognitive impairment in people above 50 years of age in nearby area of Varanasi. International Conference on Recent Advances in Cognition and Health. Feb 6-8, 2016; Department of Psychology, Banaras Hindu University, Varanasi
12. **Abhai Kumar**, Smita Singh, Abhishek Pathak, V. N. Mishra, and Deepika Joshi. The status of cognitive decline in elderly population using Mini Mental State Examination and imaging techniques. International Conference on Recent Advances in Cognition and Health. Dec 19-21, 2016; Department of Psychology, Banaras Hindu University, Varanasi
13. **Abhai Kumar** and Smita Singh. Proteomics based identification of plasma proteins in understanding host-pathogen interaction in chronic typhoid carriers leading to gall bladder cancer. International Conference on updates in Cancer Prevention and Research... February 14-16, 2017. Baba Saheb Bhim Rao Ambedkar University, Lucknow. India.
14. **Abhai Kumar**. Proteomics based identification of differential plasma proteins and changes in white matter integrity as markers for early detection of mild cognitive impaired subjects at high risk of Alzheimer's disease. International Conference on Trends in Biochemical and Biomedical Research: Advances and Challenges (TBBR-2018). February 13-15, 2018, Department of Biochemistry, Institute of Science, Banaras Hindu University, Varanasi, India.
15. **Abhai Kumar**, Smita Singh, Anup Singh and Ashish Verma Vitamin D deficiency and oxidative stress as major factors in onset of cognitive decline in elderly population. 3rd International conference on Nutraceuticals and chronic diseases. September 14-16, 2018 at Sri Rama Himalayan University, Rishikesh, Uttarakhand
16. **Abhai Kumar**, Smita Singh, Anup Singh and Ashish Verma. Vitamin D deficiency and oxidative stress as major factors in onset of cognitive decline in elderly population. ACCS-2018, Indian Institute of Technology, Guwahati, October 10-12, 2018
17. **Abhai Kumar**, Smita Singh, Anup Singh and Ashish Verma. White matter changes and oxidative stress as major factors in onset of

- cognitive decline in elderly population. International Conference on Neuroscience; 36th Annual meeting of Indian Academy of Neuroscience. October 29-31, 2018 Banaras Hindu University, Varanasi, India
18. **Abhai kumar**, Smita Singh. Vitamin D deficiency in Elderly population. National Seminar on Biotechnology Interventions in Agriculture, Health and Industry (BIAHI-2019) February 23-24, 2019, Department of Biotechnology, Deen Dayal Upadhyay Gorakhpur University, Gorakhpur
 19. **Abhai Kumar** and Smita Singh (Invited Talk). Oxidative Stress and Vitamin D deficiency in elderly population. National Conference on Interdisciplinary Advancement in Biochemistry (NCIAB-2019). March 28-29, 2019, Department of Biochemistry, Rammanohar Lohia Avadh University, Ayodhya, India
 20. **Abhai Kumar**. (Invited Talk). Role of Vitamin D in neurodegeneration and cognitive decline in elderly population. 4th International Conference on Nutraceuticals and Chronic diseases (INCD-2019) at Indian Institute of Technology Guwahati, Assam, India September 23-25, 2019
 21. **Abhai Kumar**, Institute of Neurology, Banaras Hindu University, Varanasi, India, Virtual Invited Lecture entitled “Ageing and Inflammation in Parkinson's Alzheimer's and other degenerative disorders-An Overview” in the Session #130 “Neurodegeneration by Diverse Environmental and Physical Stressors: Protection by Structurally Diverse Nutraceuticals and Functional Foods” (A SHIFT20 Program organized by the Institute of Food Technologists (IFT), Chicago, IL, USA, during July 13-15, 2020
 22. **Abhai Kumar** delivered a Virtual Invited lecture entitled “Gastrointestinal Ecology: Application of Nutraceuticals on Microbiome, Nutrient Absorption, Competent Digestion, and Immune Health” in the Session “Nutraceuticals and Functional Foods in Boosting the Multi-Faceted Roles of Gut Microbiome to Enhance Digestive Health and Immune Competence”. Institute of Food Technologists (IFT), Chicago, IL, USA (IFT 2021) Session during July 19-23, 2021



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