

Dr. Yogesh Kumar

Associate Professor, Department of Botany, Central University of Jammu, J&K, India

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Doctor of Philosophy (2011) Specialization: Biotechnology

CSIR-Institute of Himalayan Bioresource Technology, Palampur, H.P., India.

Master of Science (2005) Botany, Guru Nanak Dev University, Amritsar

Bachelor of Science (2003), Medical, Guru Nanak Dev University, Amritsar



Research Interests:

Plant Virology, Molecular Biology, Host-virus interaction

Research Projects:

- “Unravelling host-pathogen interactions underlying disease development by velvet bean severe mosaic virus in medicinal plant *Mucuna pruriens* through transcriptome analysis” funded by CSIR (Rs. 34,96,000) as Principal Investigator.
- “Functional characterization of RNA silencing suppressor encoded by a begomovirus infecting *Mucuna pruriens*, a medicinal plant” funded by DST-SERB (Rs. 23,35,000) as Principal Investigator.

Awards and Recognition:

- **Young Scientist Award** by the Agro-Environmental Education & Farmers Welfare Society (AEEFWS; numero uno society for agricultural professionals) in **June 2022**.

Research Guidance:

- Supervised 2 students for their Ph.D.
- Co-supervised 2 students for their Ph.D.
- Supervised 32 M.Sc. students for their research projects.

Research/Teaching Experience

- Associate Professor, Department of Botany, **Central University of Jammu**: 6 Jul 2023 onwards
- Assistant Professor, Department of Biotechnology, **DAV University, Jalandhar**: 3 Aug 2013 to 5 Jul 2023
- Assistant Professor in **Amity University, Noida**: 1 June 2011 to 2 Aug 2013
- **Senior Research Fellow (CSIR)** at Institute of Himalayan Bioresource Technology, Palampur, Himachal Pradesh, India: Feb 2008 to Mar 2011.
- **Junior Research Fellow (CSIR)** at Institute of Himalayan Bioresource Technology, Palampur, Himachal Pradesh, India: Feb 2006 to Jan 2008

Professional Trainings:

- “A” grade in **28 day General Orientation Course (GoC)** held at Guru Nanak Dev University Academic Staff College, Amritsar from 15/12/2017 to 11/01/2018
- Two week Summer School on “RCA-based diagnosis of plant DNA viruses”, **University of Stuttgart, Germany**.

Publicaitons:

S. No.	Authors, Title with Vol/Issue and page no.	Journal	ISSN	Authorship
1.	Y. Kumar , V. Hallan and A.A. Zaidi. Molecular characterization of a distinct bipartite begomovirus species infecting tomato in India. (2008) 37:425-431	Virus Genes	0920-8569	First Author
2.	Y. Kumar , V. Hallan and A.A. Zaidi. First finding of Freesia mosaic virus infecting freesia in India. (2009) 58: 404	Plant Pathology	1365-3059	First Author
3.	Y. Kumar , V. Hallan and A.A. Zaidi. Identification and characterization of Bean yellow mosaic virus infecting Freesia. (2009) 18(2), 253-255	Journal of Plant Biochemistry and Biotechnology	0971-7811	First Author
4.	Y. Kumar , P. Bhardwaj, V. Hallan and A. A. Zaidi. Detection and characterization of Ageratum enation virus and a nanovirus-like satellite DNA1 from zinnia showing leaf curl symptoms in India. (2010) 76:395-398	Journal of General Plant Pathology	1345-2630	First Author
5.	Y. Kumar , V. Hallan and A.A. Zaidi. Chilli leaf curl Palampur virus is a distinct begomovirus species associated with a betasatellite. (2011) 60(6): 1040-1047	Plant Pathology	1365-3059	First Author
6.	Y. Kumar , V. Hallan and A.A. Zaidi. First report of Ageratum enation virus infecting Crassocephalum crepidioides (Benth.) S. Moore and Ageratum conyzoides in India. (2011) 77: 214-216	Journal of General Plant Pathology	1345-2630	First Author
7.	M. Zaim, Y. Kumar , V. Hallan and A.A. Zaidi. Velvet bean severe mosaic virus: A distinct begomovirus species causing severe mosaic in Mucuna puriens (L.) DC. (2011) 43: 138-146	Virus Genes	0920-8569	Corresponding Author
8.	A. Negi, T. Rana, Y. Kumar , V. Hallan and A.A Zaidi. First report of Apple stem grooving virus from pome and stone fruits in India.(2009) 91(2): 501	Journal of Plant Pathology	1125-4653	Co-author
9.	Y. Walia, Y. Kumar , T. Rana, P. Bhardwaj, R. Ram, P.D. Thankur, U. Sharma, V. Hallan and A. A. Zaidi. Molecular characterization and variability analysis of Apple scar skin viroid in India. (2009) 75: 307-311	Journal of General Plant Pathology	1345-2630	Co-author
10.	T. Rana, V. Chandel, Y. Kumar , R. Ram, V. Hallan and A. A. Zaidi. Molecular variability analyses of Apple chlorotic leaf spot virus capsid protein. (2010) 35(4): 605-615	Journal of Biosciences	0250-5991	Co-author
11.	O.F. Ayman, Y. Kumar , V. Hallan, A.A. Zaidi. Molecular characterization of the phytoplasmas associated with toon trees and periwinkle in India. (2010) 76(5): 351-354	Journal of General Plant Pathology	1345-2630	Co-author
12.	A. Negi, T. Rana, Y. Kumar , R. Ram, V. Hallan and A. A. Zaidi. Analysis of coat protein gene of Indian strain of Apple stem grooving virus. (2010) 19(1): 91-94	Journal of Plant Biochemistry and Biotechnology	0971-7811	Co-author
13.	Y. Walia, Y. Kumar , T. Rana, R. Ram, V. Hallan, A.A. Zaidi. Variability assessment and construction of infectious clone of Indian Apple Scar Skin Viroid. (2010) 427: 96-100	Julius-Kühn-Archiv	1868-9892	Co-author
14.	A. Jangid, V. Chandel, Y. Kumar , N. Rishi. RNA silencing suppressor activity of Velvet bean severe mosaic begomovirus DNA-A encoded proteins. (2017) 50: 900-908	Archives of Phytopathology and Plant Protection	0323-5408	Co-author
15.	A. Kulshreshtha, Y. Kumar , P. Roshan, B. Bhattacharjee, S. K. Mukherjee, V. Hallan. AC4 protein of tomato leaf curl Palampur virus is an RNA silencing suppressor and a pathogenicity determinant. (2019) 135:103636	Microbial Pathogenesis	0882-4010	Co-author
16.	J. Sharma, P. Lager, Y. Kumar . First report of Tomato leaf curl New Delhi virus infecting Ricinus communis. (2021) 44:e12053: 1-4	New Disease Reports	2044-0588	Corresponding Author
17.	P. Lager, J. Sharma, Y. Kumar . First report of a begomovirus infecting Cordyline fruticosa. (2022) 45:e12068: 1-4	New Disease Reports	2044-0588	Corresponding Author
18.	J. Sharma, P. Lager, Y. Kumar . Techniques for Detection and Diagnosis of Plant Viruses: A Review. (2022) R-2378: 1-8	Agricultural Reviews	0253-1496	Corresponding Author
19.	J. Sharma, P. Lager, R. Kumar, Y. Kumar . First Report and Genome Characterization of Pepper leaf curl Bangladesh virus Infecting Chilli In India. (2022) 23: 75-88	Plant Cell Biotechnology and Molecular Biology	0972-2025	Corresponding Author
20.	P. Lager, J. Sharma, Y. Kumar . Molecular Characterization of a Bipartite Begomovirus and an Alphasatellite Associated with Leaf Curl and Mosaic Disease of Bitter Gourd in Punjab. (2023) 24: 52-63	Plant Cell Biotechnology and Molecular Biology	0972-2025	Corresponding Author
21.	P. Lager, J. Sharma, Y. Kumar . First report of a begomovirus and associated betasatellite causing yellow veinmosaic disease of <i>Celosia cristata</i> . (2023) 48, e12211 1-4	New Disease Reports	2044-0588	Corresponding Author
22.	P. Lager, J. Sharma and Y. Kumar . Integration of Transcriptomic approaches towards understanding Begomovirus Infection in Plants. (2023)12(08): 196-206	Int. J. Curr. Microbiol. App. Sci.	2319-7706	Corresponding Author
23.	P. Lager and Y. Kumar . Alterations in biochemical components of bitter gourd, sponge gourd, and okra plants infected with Tomato leaf curl New Delhi virus. (2023) 10(3): 633-648	International Journal of Research and Analytical Reviews	2349-5138	Corresponding Author
24.	P. Lager and Y. Kumar . Molecular characterization of a begomovirus associated with leaf crumpling and severe mosaic disease of bell pepper. (2023) 18:32 (1-7)	Australasian Plant Disease Notes	1833-928X	Corresponding Author

Editor of Book

S. No.	Name of the Book	Publisher	Year	No of Co-Editors	ISBN
1	Genome Editing in Crop Improvement	Nova Publishers Inc. New York	2023	3	979-8886977400

Book Chapters in Edited Books

S.No.	Title with page no.	Book Title, editor & publisher	ISSN/ISBN No.	Year of Publication	Authorship
1.	Y. Kumar , V. Hallan and A. A. Zaidi. Emerging Begomovirus problems in India. pp 105-128	Emerging Geminiviral Diseases and their Management. Nova Science Publishers, Inc.	978-1616686208	2010	First Author
2.	V. Chandel, T. Rana, Y. Kumar , V. Hallan and A.A. Zaidi. Stone fruit viruses: Economic importance and biotechnological approaches towards management strategies. pp 301-332	Recent Trends in Plant virology. Studium Press	978-1933699721	2012	Co-author
3.	I. Sharma, A. Sharma, I. Singh, R. Kumar, Y. Kumar and A. Sharma. Plant Disease Detection Using Image Sensors: A step towards precision agriculture. pp 89-130	Internet of Things and Machine Learning in Agriculture. Nova Science Publishers, Inc.	978-1685071929	2021	Co-author
4.	N. Singh, V. Maurya, I. Sharma, Y. Kumar , R. Kumar, and A. Sharma. Combinations of PGPR with Other Soil Micro- and Macro-Organisms for Improved Stress Tolerance in Plants. pp 83-107	PGPR (Plant Growth Promoting Rhizobacteria) for Plant Stress Management. Nova Science Publishers, Inc.	979-8891131606	2023	Co-author

Trainings/workshops attended:

- **Workshop on “ Millets and Future Food: Popularization and Improvement for Sustainable Agriculture”**, under the aegis of Mission Life, Punjab State Council for Science and Technology & Ministry of Environment, Forest and Climate Change, Govt. of India, held at DAV University, Jalandhar from 28-29 March 2023.
- **Workshop on ‘Environmental Sustainability’**, organised under the aegis of Ministry of Environment, Forest and Climate Change, Govt. of India, held at DAV University, Jalandhar, Punjab from 23-25 March, 2023
- **Workshop on “Flow Cytometry and its Applications in Biological Research”** jointly organised by DAV University, Jalandhar and Trust for Education and Training in Cytometry (TETC), from 19-20 April 2022.
- Dr. Yogesh Kumar attended a **State Level Workshop** on ‘Quality Assessment & Accreditation through NAAC’, organised by The Department of Higher Education, Govt. of Punjab at Rayat Bahra University, Chandigarh on 23rd Feb 2022.
- Got “A” grade in **28 day General Orientation Course (GoC)** held at Guru Nanak Dev University Academic Staff College, Amritsar from 15/12/2017 to 11/01/2018
- Participated in one day **Indo-Australian workshop** on “Bioinformatics for Next Generation Sequencing Technologies” on 9th November, 2014 held at HMV College, Jalandhar
- Work Shop on Pollution Prevention Paradigm. In: AMITY Institute for Environmental Toxicology, Safety and Management in association with Ministry of Earth Sciences, Amity University, Noida, India, May 11, 2012.
- Scientific Writing and Publishing Workshop In: Amity institute of microbial technology in association with American society for microbiology, Amity University, Noida, India, May 25, 2012.
- FDP on "Challenges to Good Governance in India" on 19-06-2012 at Amity Academic Staff College, Amity University, Noida, India
- FDP on "Examination, Evaluation, Grading & Promotion: Its Importance in Student Development" on 24-06-2011 at Amity Academic Staff College, Amity University, Noida, India
- FDP on "Usage of Amizone" on 15-06-2011 at Amity Academic Staff College, Amity University, Noida, India
- CME cum workshop on “LAMP and real time PCR”. In: Department of virology, **PGIMER, Chandigarh**, December 11-13, 2008.
- Summer School 2008: “RCA-based diagnosis of plant DNA viruses”. In: Stuttgart, Biologisches Institut, **University of Stuttgart, Germany**, July 28th - August 8th 2008

Research Papers presented in International/National Conferences:					
S. No.	Title of the paper presented	Title of the Conference	Date(s) of the event	Organised by	Level of the Conference
1.	Emerging diseases caused by begomoviruses in sub-temperate regions.	10 th International Plant Virus Epidemiology Symposium	15-19 Oct, 2007	ICRISAT, Hyderabad, AP, India.	International, Within Country
2.	Incidence of potyviruses infecting <i>Freesia</i> in India	International Symposium on Viruses of Ornamental and Temperate Fruit Crops	Dec 17-18, 2007	IHBT, Palampur, HP, India	International, Within Country
3.	Molecular characterization of a distinct bipartite begomovirus species infecting tomato in India	Virocon 2008: XVIII National Conference of Indian Virological Society	Dec 11, 2008	Indian Virological Society & PGIMER, Chandigarh	National
4.	Viral diseases of <i>Capsicum</i> spp. in Himachal Pradesh	Virocon 2008: XVIII National Conference of Indian Virological Society	Dec 11, 2008	Indian Virological Society & PGIMER, Chandigarh	National
5.	Incidence of <i>Papaya ringspot virus</i> infecting squash in Egypt	Virocon 2008: XVIII National Conference of Indian Virological Society	Dec 11, 2008	Indian Virological Society & PGIMER, Chandigarh	National
6.	Molecular characterization of <i>Apple stem grooving virus</i> from pome and stone fruits in India	Virocon 2008: XVIII National Conference of Indian Virological Society	Dec 11, 2008	Indian Virological Society & PGIMER, Chandigarh	National
7.	Molecular characterization and variability analysis of <i>Apple scar skin viroid</i>	Virocon 2008: XVIII National Conference of Indian Virological Society	Dec 11, 2008	Indian Virological Society & PGIMER, Chandigarh	National
8.	Molecular characterization of the phytoplasmas associated with toon (<i>Toona ciliata</i>) trees and periwinkles in India	Current status and perspectives of phytoplasma disease research and management	February 1- 2 2010	Sitges, Spain	International, Abroad
9.	Generation of Infectious Clones and Infectivity of Tomato Leaf Curl Palampur Virus	Conference on Whitefly and thrips transmitted viruses	August 27-28, 2010	Delhi University South Campus, New Delhi	International, Within Country
10.	Tomato leaf curl Palampur virus: identification of RNA silencing suppressor of the emerging begomovirus	Conference on Whitefly and thrips transmitted viruses	August 27-28, 2010	Delhi University South Campus, New Delhi	International, Within Country
11.	Chilli leaf curl Palampur virus: A distinct monopartite begomovirus infecting chilli in Northern India	Immunobiology and Management of Viral Diseases in 21st Century	8-10 November, 2012	Indian Veterinary Research Institute, Mukteswar Campus, Nainital	National
12.	Resistance Response Against Pathogens in Plants: Understanding Plant Immunity	National Conference on Emerging Trends in Host-Microbe Interactions	17-18 April, 2015	DAV University, Jalandhar	National
13.	Infection of velvet bean severe mosaic virus on <i>Mucuna pruriens</i> a “magic bean” medicinal plant.	National conference on agrotechnology, commerce and sustainable use of medicinal and aromatic plants.	6-7 Feb 2016	NASC Complex New Delhi	National
14.	Molecular characterization of a distinct bipartite begomovirus infecting <i>Mucuna pruriens</i> in India and identification of its RNA silencing suppressors.	6th international conference on “Plant, Pathogens and People”	23-27 Feb 2016	ICAR and India Phytopathological Society, New Delhi	International, Within Country
15.	Association of Tomato leaf curl New Delhi virus with yellow mosaic and leaf puckering disease of sponge gourd in Punjab	1st International Conference On Sustainable Agriculture: Challenges and Opportunities	25, June 2021	DAV University, Jalandhar, India	International, Within Country
16.	<i>Solanum nigrum</i> L. : A new host for Tomato leaf curl New Delhi virus in Punjab (India)	1st International Conference on Sustainable Agriculture: Challenges and Opportunities	25, June 2021	DAV University, Jalandhar, India	International, Within Country

Conferences / workshops organised:

- **Co-convener** of the National Conference on Academia Industry Interface for Promoting Entrepreneurship in Medicinal and Aromatic Plants (PEMAP-2023), organised by the Department of Botany, Central University of Jammu, J&K from 24-25 August 2023.
- **Member of the Organising Committee, Workshop on “Flow Cytometry and its Applications in Biological Research”** jointly organised by DAV University, Jalandhar and Trust for Education and Training in Cytometry (TETC), from 19-20 April 2022.
- **Member of the Organising Committee, Workshop on “Millets and Future Food: Popularization and Improvement for Sustainable Agriculture”**, under the aegis of Mission Life, Punjab State Council for Science and Technology & Ministry of Environment, Forest and Climate Change, Govt. of India, held at DAV University, Jalandhar from 28-29 March 2023.