



Faculty Details proforma for DU Web-site

Title	Prof.	First Name	Indranil	Last Name	Dasgupta	Photograph
Designation		Professor				<small>QuickTime™ and a decompressor are needed to see this picture.</small>
Address		Department of Plant Molecular Biology University of Delhi South Campus Benito Juarez Road, New Delhi-110021				
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Web-Page						
Educational Qualifications						
Degree		Institution			Year	
B.Sc. (Honours)		Presidency College, Calcutta			1977	
M.Sc.		Jawaharlal Nehru University, New Delhi			1980	
Ph.D.		Jawaharlal Nehru University, New Delhi			1987	
Career Profile						
Period		Institution			Position	
2012-2013		University of Delhi South Campus			Dean, Faculty of Interdisciplinary and Applied Sciences	
2010-2013		University of Delhi South Campus			Head, Department of Plant Molecular Biology	
2004- present		University of Delhi South Campus			Professor	
1996-2004		University of Delhi South Campus			Reader	
1993-1996		TERI, New Delhi			Fellow	
1988-1993		John Innes Centre, Norwich, U.K.			Higher Scientific Officer	
1987-1988		Jawaharlal Nehru University, New Delhi			Research Scientist	
Administrative Assignments						
Chair, Governing Body, Maitreyi College, University of Delhi (2013-2017)						
Dean, Faculty of Interdisciplinary and Applied Sciences, University of Delhi (2012-2013)						
Head, Department of Plant Molecular Biology, University of Delhi (2010-2013)						
Provost, Aravali and Saramati Hostels, University of Delhi South Campus (2015-present)						
Areas of Interest / Specialization						
Molecular biology of plant-virus interactions, genetically engineered viral resistance in crop plants, analysis of genes of plant viruses, use of modified plant viruses in gene expression and gene silencing.						
Subjects Taught						

Molecular genetics and prokaryotic gene expression at the M.Sc. level and plant viruses at the Ph.D. level.

Research Guidance

Has guided 19 Ph.D., 2 M.Phil. and 18 M.Sc. students till date. Currently, guiding 5 Ph.D. and 1 M.Sc. students.

Publications Profile (last five years)

1. Thompson, J.R., Dasgupta, I., Fuchs, M., Iwanami, T., Karasev, A.V., Petrzik, K., Sanfacon, H., Tzanetakis, I., van der Vlugt, R., Wetzels, T., Yoshikawa, N. and ICTV Report Consortium (2017). ICTV Virus Taxonomy Profile: *Secoviridae*. *Journal of General Virology* 98: 529-531.
2. Kant, R. and Dasgupta, I. (2017) Phenotyping of VIGS-mediated gene silencing in rice using a vector derived from a DNA virus. *Plant Cell Reports* 36: 1159-1170.
3. Borah, B.K., Zareen, F., Baruah, G. and Dasgupta, I. (2016) Insights into the control of geminiviral promoters. *Virology* 495: 101-111.
4. Valarmathi, P., Kumar, G., Robin, S., Manonmani, S., Dasgupta, I. and Rabindran, R. (2016) Evaluation of virus resistance and agronomic performance of rice cultivar ASD 16 after transfer of transgene against *Rice tungro bacilliform virus* by backcross breeding. *Virus Genes* 52: 521-529.
5. Kelkar, V., Kushawaha, A.K. and Dasgupta, I. (2016) Identification of amino acid residues of the coat protein of *Sri Lankan cassava mosaic virus* affecting symptom production and viral titer in *Nicotiana benthamiana*. *Virus Research* 217: 38-46.
6. Singh, A., Saraf, S., Dasgupta, I. and Mukherjee, S.K. (2016) Identification and validation of a virus-inducible tasi-RNA-generating TAS4 locus in tomato. *Journal of Biosciences* 41(1): 109-118.
7. Rishishwar, R., Mazumdar, B. and Dasgupta, I. (2015) Diverse and recombinant begomoviruses and various satellites are associated with Bhendi yellow vein mosaic disease of okra in India. *Journal of Plant Biochemistry and Biotechnology*. 24: 470-475.
8. Kant R., Sharma S. and Dasgupta I. (2015) Virus-induced gene silencing (VIGS) for functional genomics in rice using Rice tungro bacilliform virus (RTBV) as a vector, In, *Methods in Molecular Biology* 1287: 201-217.
9. Kushawaha, A.K., Rabindran, R. and Dasgupta, I. (2015) Phylogenetic analysis and biolistic infectivity of cloned *Sri Lankan cassava mosaic virus* DNA-A from Tamil Nadu, India on *Nicotiana benthamiana*. *Acta Virologica* 59 (1): 57-63.
10. Singh, A., Taneja, J., Dasgupta, I. and Mukherjee, S.K. (2014) Development of plants resistant to tomato geminiviruses using artificial trans-acting small interfering RNA. *Molecular Plant Pathology* 16(7): 725-734.
11. Johnson, A.M.A., Dasgupta, I. and Sai Gopal, D.V.R. (2014) Development of Loop-mediated isothermal amplification and SYBR Green Real time PCR methods for the detection of *Citrus yellow mosaic badnavirus* in citrus. *Journal of Virological Methods* 203: 9-14.
12. Jyothsna, M., Manonmani, S., Rabindran, R., Dasgupta, I. and Robin, S. (2013) Introgression of transgenic resistance for tungro disease into mega variety ASD16 of Tamil Nadu through marker-assisted backcross breeding. *Madras Agricultural Journal* 100(1-3): 70-74.
13. Borah, B.K., Sharma, S., Kant, R., Johnson, A.M.A., Saigopal, D.V.R. and Dasgupta, I. (2013) Bacilliform DNA-containing plant viruses in the tropics: commonalities within a genetically diverse group. *Molecular Plant Pathology* 14(8): 759-771.
14. Purkayastha, A., Sharma, S. and Dasgupta, I. (2013) Virus-induced gene silencing for rice using agroinoculation: *Methods in Molecular Biology* 975: 33-45, In: *Virus-Induced Gene Silencing, Methods and Protocols*, Ed: Becker, A., Springer Science + Business Media, LLC, Humana Press,

New York.

15. Mathur, S. and Dasgupta, I. (2013) Further support of genetic conservation in Indian isolates of Rice tungro bacilliform virus by sequence analysis of an isolate from North–Western India. *Virus Genes* 46: 387-391.
16. Johnson, A.M.A., Borah, B.K., Saigopal, D.V.R. and Dasgupta, I. (2012) Analysis of full-length sequences of two *Citrus yellow mosaic badnavirus* isolates infecting *Citrus jambhiri* (Rough Lemon) and *Citrus sinensis* L. Osbeck (Sweet Orange) from a nursery in India. *Virus Genes* 45: 600-605.
17. Verma, V., Sharma, S., Vimla Devi, S., Rajasubramaniam, S. and Dasgupta, I. (2012) Delay in virus accumulation and low virus transmission from transgenic plants expressing Rice tungro spherical virus RNA. *Virus Genes* 45: 350-359.
18. Borah, B. K. and Dasgupta, I. (2012a) PCR-RFLP analysis indicates that recombination might be a common occurrence among the cassava infecting begomoviruses in India. *Virus Genes* 45: 327-332.
19. Borah, B. K. and Dasgupta, I. (2012b) Begomovirus research in India: A critical appraisal and the way ahead. *Journal of Biosciences* 37: 791-806.
20. Sharma, S. and Dasgupta, I. (2012) Development of SYBR Green I based real time PCR assays for quantitative detection of *Rice tungro bacilliform virus* and *Rice tungro spherical virus*. *Journal of Virological Methods* 181: 86-92.
21. Roy, S, Banerjee, A, Tarafdar, J, Senapati, BK and Dasgupta, I. (2012) Transfer of transgenes for resistance to rice tungro disease into high yielding rice cultivars through gene based marker-assisted selection. *The Journal of Agricultural Science* 150: 610-618.
22. Baskaran, P and Dasgupta, I. (2012) Gene delivery using microinjection of agrobacterium to embryonic shoot apical meristem of elite *indica* rice cultivars. *Journal of Plant Biochemistry and Biotechnology* 21 (2): 268-274.

Conference Organization/ Presentations (in the last three years)

Organized the following conference:

8th International Geminivirus Symposium and the 6th International ssDNA Comparative Virology Workshop at Hotel Vivanta by Taj, Dwaraka, New Delhi and Jawaharlal Nehru University, New Delhi from 7th – 10th November 2016.

Attended the following conferences:

1. VIROCON 2016 and International Conference on Global Perspectives in Virus Disease Management (8th-10th December, 2016) at ICAR-Indian Institute of Horticultural Research, Bengaluru. Delivered an invited talk entitled “Exploring the interactions between rice and the viruses causing the tungro disease” and co-chaired a session in the conference.
2. The 4th Molecular Virology Meeting (16th and 17th April 2015) held at Rajiv Gandhi Centre for Biotechnology, Trivandrum, Kerala. Delivered a talk.
3. The XXIII National Conference of Indian Virological Society (18-20th December, 2014) held at Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu. Delivered a lecture and chaired a session.

Research Projects (Major Grants/Research Collaboration)

Title of project	Funding agency	Amount in lakhs of rupees	Date of sanction and duration
Generation of transgenic virus resistance in okra using RNA interference	Department of Biotechnology, Government of	100.0	1.10.2012 for five years

	India under BIPP scheme		
The J. C. Bose Fellowship	Department of Science and Technology, Government of India	95.0	17.03.2017 for five years
Awards and Distinctions			
Fellow, Indian National Science Academy, New Delhi (2014) Fellow, Indian Academy of Sciences, Bangalore (2010) Fellow, National Academy of Sciences India, Allahabad (2009) Visiting Professorship, Northwest University of Agriculture and Forestry, China (2015) The J. C. Bose Fellowship (2017)			
Association With Professional Bodies			
Member, Editorial Board, Journal of Biosciences Member, Editorial Board, Virus Disease Participating Member, Erasmus Mundus Program "BRAVE" Vice President, Indian Virological Society			
Other Activities			
Holder of the following patents: a) US Patent no. 07728122 entitled "RTBV promoter and process thereof" b) Eurasian patent no. 013229 entitled same as above. Both patents awarded jointly to University of Delhi and Department of Biotechnology, Government of India. Technology transfer: Technology related to expression of heterologous genes by the use of RTBV promoter, developed at the University of Delhi South Campus was transferred to Bejo Sheetal Seeds, Jalna, Maharashtra on 24.11.2008.			