

SIBNARAYAN DATTA, PhD, DRDS
Scientist 'D'

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EDUCATION:

Post Doctoral Research (Molecular Virology/ Biotechnology)	Tulane University School of Medicine, New Orleans, Louisiana, USA	2009
Ph.D. (Molecular Virology)	ICMR Virus Unit, & Jadavpur University, Kolkata, India	2008
M.Sc. (Zoology)	University of Calcutta, West Bengal, India	2001
B.Sc. (Hons), Zoology, Botany, Chemistry	University of Calcutta, West Bengal, India	1999

CURRENT RESEARCH INTERESTS:

- Virus Discovery
- Vector borne viral infections
- Molecular Diagnostics
- Environmental & Clinical Virology
- Molecular Epidemiology

SOCIETY MEMBERSHIPS:

- Life member of *Indian Science Congress Association* (ISCA)
- Life member of *National Academy of Vector Borne Diseases* (NAVBD)

AWARDS & HONOURS:

- **DRDO National Technology Day Oration Medal, 2016**
- **DRL Scientist of the year 2015 Award**
- **Dr. SN Dube Best paper of the year 2015 Award**
- **DRL Best Lecture of the year 2015 Award**
- **DRDO National Science Day Oration Medal, 2013**

RESEARCH FELLOWSHIPS

- Selected for research fellowship and eligibility for Lectureship from the **University Grants Commission** (UGC, Govt. of India) through **National Eligibility Test (NET-December 2000 & NET-June 2001)**, organized jointly by **Council for Scientific and Industrial Research (CSIR)** and **UGC**.
- Selected for research scholarship from **Ministry of Human Resource Development** (MHRD, Govt. of India) through **Graduate Aptitude Test in Engineering (GATE-2001)**, organized by the **Indian Institutes of Technology, Kharagpur (IITK)**.

ACADEMIC ACHIEVEMENTS/ APPOINTMENTS

- **Editorial Board Member:** *PLOS One* (*Academic Editor*), *World Journal of Virology*, *World Journal of Hepatology*, *World Journal of Gastroenterology* (Baishideng Journals)
- **Reviewer of Manuscripts:** *Infection, Genetics and Evolution* (Elsevier), *BMC Infectious Diseases* (BioMed Central), *Indian Journal of Virology* (Springer), *Journal of Clinical and Experimental Hepatology* (Elsevier), *Virology Journal* (BioMed Central), *Journal of Medical Virology* (Wiley), *Hindawi Journals*, *Clinical Microbiology and Infection* (European Society of Clinical Microbiology and Infectious Diseases), *Hepatology International* (Springer), *Medical Principles and Practice* (S. Karger AG).
- **Internal Reviewer of manuscripts & project proposals:** Defence R&D Organization (DRDO)

JOURNAL PUBLICATIONS

- Datta S, Budhauiliya R, Chatterjee S, Muaka V, Veer V, Chakravarty, R. Enhancement of PCR Detection Limit by Single Tube Restriction Endonuclease- PCR (RE-PCR). *Molecular Diagnosis & Therapy*. 2016; 20: 297-305.
- Yadav KK, Bora A, Datta S, Chandel K, Gogoi HK, Prasad GBKS, Veer V. Molecular characterization of midgut microbiota of *Aedes albopictus* and *Aedes aegypti* from Arunachal Pradesh, India. *Parasites & Vectors*. 2015; 8:641.
- Datta S. Compartmentalization of hepatitis B virus: Looking beyond the liver. *World Journal of Hepatology*. 2015; 7: 2241-2244.
- Datta S, Gopalakrishnan R, Chatterjee S, Veer V. Phylogenetic Characterization of a Novel Insect Specific Flavivirus (ISF) Detected in a *Culex* Pool, Collected From Assam, India. *Intervirology* 2015; 58: 149-154.
- Datta S, Budhauiliya R, Das B, Chatterjee S, Muaka V, Veer V. Next-generation sequencing in clinical virology: Discovery of new viruses. *World Journal of Virology* 2015; 4: 265-276.
- Datta S, Budhauiliya R, Das B, Chatterjee S, Vairale MG, Bora A, Gogoi HK, Veer V. First report of Tomato leaf curl Bangladesh virus (ToLCBV) infecting *Gomphostemma niveum* plants in Assam, India. *New Disease Reports*, 2015; 31:19.
- Datta S*, Agarwal M*, Chatterjee S, Gogoi H, Veer V, Singh L. Detection of human papillomavirus in women attending Pap cervical screening camp at a peripheral hospital of North-Eastern India *Medical Journal of Armed Forces India* 2015; 71: 182-185. [*Equal Contribution]
- Bandopadhyay M, Banerjee A, Sarkar N, Panigrahi R, Datta S, Pal A, Singh SP, Biswas A, Chakrabarti S, Chakravarty R. Tumor suppressor micro RNA miR-145 and onco micro RNAs miR-21 and miR-222 expressions are differentially modulated by Hepatitis B virus X protein in malignant hepatocytes. *BMC Cancer*. 2014 14:721.
- Datta S, Chatterjee S, Veer V. Recent advances in molecular diagnostics of hepatitis B virus. *World Journal of Gastroenterology*. 2014 20: 14615-14625.
- Biswas A, Panigrahi R, Chandra PK, Banerjee A, Datta S, Pal M, Chakraborty S, Bhattacharya P, Chakrabarti S, Chakravarty R. Characterization of the occult hepatitis B virus variants circulating among the blood donors from Eastern India. *The Scientific World Journal*. 2013; Article ID 212704.
- Panigrahi R, Hazari S, Chandra S, Chandra PK, Datta S, Kurt R, Cameron CE, Huang Z, Zhang H, Garry RF, Balart LA, Dash S. Interferon and Ribavirin Combination Treatment Synergistically Inhibit HCV Internal Ribosome Entry Site Mediated Translation at the Level of Polyribosome Formation *PLoS One*, 2013; 8: e72791.
- Datta S. Vector borne viral infections: Their emergence and transmission [National Science Day Oration, February 28th 2013] *DRDO Science Spectrum*, February 2013. [A publication of the DRDO, Min. of Defence, Govt. of India.
- Datta S, Chatterjee S, Policegoudra RS, Gogoi HK, Singh L. Hepatitis viruses and non-Hodgkin's lymphoma: A review [Review article] *World Journal of Virology*. 2012; 1: 162-173.

- Datta S, Chatterjee S, Veer V, Chakravarty R. Molecular Biology of the Hepatitis B Virus for Clinicians [Review article] *Journal of Clinical & Experimental Hepatology*: 2012; 2: 353-365.
- Panigrahi R, Majumder S, Gooptu M, Biswas A, Datta S, Chandra PK, Banerjee A, Chakrabarti S, Bandopadhyay D, De BK, Chakravarty R. Occult HBV infection among anti-HBc positive HIV-infected patients in apex referral centre, Eastern India. *Annals of Hepatology*: 2012; 11:870-875.
- Pal A, Panigrahi R, Biswas A, Datta S, Sarkar N, Guha SK, Saha B, Banerjee A, Chakrabarti S, Chakravarty R. Influence of HIV-associated degree of immune suppression on molecular heterogeneity of hepatitis B virus among HIV co-infected patients. *Virology*. 2013; 436: 134-142.
- Datta S*, Hazari S*, Chandra PK*, Samara M, Poat B, Gunduz F, Wimley WC, Hauser H, Koster M, Lamaze C, Balart LA, Garry RF, Dash S. [*Equal contribution] Mechanism of HCV's resistance to IFN- α in cell culture involves expression of functional IFN- α receptor 1. *Virology Journal*. 2011; 8:351.
- Biswas A, Banerjee A, Chandra PK, Datta S, Panigrahi R, Dutta D, De BK, Pal M, Guha SK, Chakrabarti S, Chakravarty R. Variations in the Functional Domain of Basal Core Promoter of Hepatitis B Virus Among Eastern Indian Patients With Prevalence of Genotypes A, C, and D Among the Same Ethnic Population. *Journal of Medical Virology*. 2011; 83:253-60.
- Panigrahi R, Biswas A, Datta S, Banerjee A, Chandra PK, Mahapatra PK, Patnaik B, Chakrabarti S and Chakravarty R. Anti-hepatitis B core antigen testing with detection and characterization of occult hepatitis B virus by an in-house nucleic acid testing among blood donors from Behrampur, Ganjam, Orissa in southeastern India: implications for transfusion. *Virology Journal*. 2010; 7: 204.
- Hazari S, Chandra PK, Poat B, Datta S, Garry RF, Foster TP, Kousoulas G, Wakita T, Dash S. Impaired antiviral activity of interferon alpha against hepatitis C virus 2a in Huh-7 cells with a defective Jak-Stat pathway. *Virology Journal*. 2010; 7:36.
- Datta S, Panigrahi R, Biswas A, Chandra PK, Banerjee A, Mahapatra PK, Panda CK, Chakrabarti S, Bhattacharya SK, Biswas K, Chakravarty R. Genetic characterization of Hepatitis B Virus in peripheral blood leukocytes: Evidence for selection and compartmentalization of viral variants with immune escape G145R mutation. *Journal of Virology*. 2009; 83:9983-92.
- Chandra PK, Biswas A, Datta S, Banerjee A, Panigrahi R, Chakrabarti S, De BK, Chakravarty R. Subgenotypes of hepatitis B virus genotype D (D1, D2, D3 and D5) in India: differential pattern of mutations, liver injury and occult HBV infection. *Journal of Viral Hepatitis*, 2009; 16:749-56.
- Biswas A, Chandra PK, Datta S, Panigrahi R, Banerjee A, Chakrabarti S, Biswas KD, Patra D, Bhattacharya P, Biswas K, Chakravarty R. Frequency and distribution of hepatitis B virus genotypes among eastern Indian voluntary blood donors: association with precore and basal core promoter mutations. *Hepatology Research* 2009; 39: 53-59.
- Datta S. An overview of molecular epidemiology of hepatitis B virus (HBV) in India. *Virology Journal* 2008, 5:156. [Highly accessed Review article]
- Datta S, Banerjee A, Chandra PK, Biswas A, Panigrahi R, Mahapatra PK, Panda CK, Chakrabarti S, Bhattacharya SK, Chakravarty R. Analysis of hepatitis B virus X gene phylogeny, genetic variability and its impact on pathogenesis: implications in Eastern Indian HBV carriers. *Virology* 2008; 382:190-198.
- Datta S, Biswas A, Chandra PK, Banerjee A, Panigrahi R, Mahapatra PK, Chakrabarti S, Panda CK, Chakravarty R. Molecular epidemiology and clinical significance of hepatitis B virus genotypes, core promoter and precore mutations in Eastern India. *Intervirology* 2008; 51:275-284.
- Banerjee A, Chandra PK, Datta S, Biswas A, Bhattacharya P, Chakraborty S, Basu SK, Chakravarty R. Frequency and significance of hepatitis B virus surface gene variants circulating among 'AntiHBc only' individuals in Eastern India. *Journal of Clinical Virology* 2007; 40: 312-317.
- Datta S, Banerjee A, Chandra PK, Chakraborty S, Basu SK, Chakravarty R. Detection of a premature stop codon in the surface gene of hepatitis B virus from an HBsAg and antiHBc negative blood donor. *Journal of Clinical Virology* 2007; 40: 255-258.
- Chandra PK, Banerjee A, Datta S, Chakravarty R. 1862T mutation among Hepatitis B virus infected individuals: association with viral genotypes and disease outcome in Kolkata, Eastern India. *Intervirology* 2007; 50:173-180.

- Datta S, Banerjee A, Chandra PK, Chakravarty R. Pin1-HBx Interaction: A step towards understanding the significance of HBV genotypes in hepatocarcinogenesis. *Gastroenterology* 2007; 133:727-728. [Letter]
- Datta S, Chandra PK, Banerjee A, Chakravarty R, Murhekar KM, Murhekar MV. Predominance of Hepatitis B virus genotype C among Karens, the 'old settlers' of Andaman and Nicobar Islands, India. *Archives of Virology* 2007; 152:1223-1228.
- Bhattacharya P, Chandra PK, Datta S, Banerjee A, Chakraborty S, Rajendran K, Basu SK, Chakravarty R. Significant increase in HIV, HBV, HCV and syphilis infections among blood donors in West Bengal, Eastern India 2004-2005: exploratory screening reveals high frequency of occult HBV infection. *World Journal of Gastroenterology* 2007; 13:3730-3733.
- Datta S, Banerjee A, Chandra PK, Chakravarty R. Selecting a genetic region for molecular analysis of hepatitis B virus transmission. *Journal of Clinical Microbiology* 2007; 45:687-688. [Letter]
- Banerjee A, Datta S, Chandra PK, Roychowdhury S, Panda CK, Chakravarty R. Distribution of hepatitis B virus genotypes: Phylogenetic analysis and virological characteristics of Genotype C circulating among HBV carriers in Kolkata, Eastern India. *World Journal of Gastroenterology* 2006; 12:5964-5971.
- Datta S, Banerjee A, Chandra PK, Mahapatra PK, Chakrabarti S, Chakravarty R. Drug trafficking routes and hepatitis B in injection drug users, Manipur, India. *Emerging Infectious Diseases* 2006; 12:1954-1957.
- Banerjee A, Kurbanov F, Datta S, Chandra PK, Tanaka Y, Mizokami M, Chakravarty R. Phylogenetic relatedness and genetic diversity of hepatitis B virus isolates in Eastern India. *Journal of Medical Virology* 2006; 78:1164-1174.
- Datta S, Banerjee A, Chandra PK, Chowdhury A, Chakravarty R. Genotype, phylogenetic analysis, and transmission pattern of occult hepatitis B virus (HBV) infection in families of asymptomatic HBsAg carriers. *Journal of Medical Virology* 2006; 78:53-59.
- Chowdhury A, Santra A, Chakravarty R, Banerjee A, Pal S, Dhali GK, Datta S, Banerji S, Manna B, Chowdhury SR, Bhattacharya SK, Mazumder DG. Community-based epidemiology of hepatitis B virus infection in West Bengal, India: prevalence of hepatitis B e antigen-negative infection and associated viral variants. *Journal of Gastroenterology & Hepatology* 2005; 20:1712-1720.

PRESENTATIONS/LECTURES/PUBLISHED ABSTRACTS

1. Datta S. Recent Advances in Molecular Detection Technologies and Their Applications in Military Research. **National Technology Day Oration**. May 11, 2016, Defence Research Laboratory (DRDO), Tezpur, India. [*Nominated Lecture*]
2. Datta S. An Introduction to Biological Hazards & Safety in Research Laboratories. **Awareness and Training Program on Biosafety & Biohazard Management**. January 31, 2015, Darrang College, STAR college- DBT, Tezpur, India. [*Invited Lecture*]
3. Datta S. Poor Sanitation Related Health Issues. **SANICON 2014: Recent Advances In Biodegradation of Human Wastes**, December 17, 2014, Defence Research Laboratory (DRDO), Tezpur, India. [*Invited Lecture*]
4. Datta S, Dhiman SK, Rabha B, Veer V. Direct detection of Japanese Encephalitis virus RNA in wild collected mosquitoes. **Brainstorming Conference on Emerging New Epidemiological Dimensions of Japanese Encephalitis (JE) and other Acute Encephalitis Syndromes (AES)**, June 26-27, 2014, Centre for Research in Medical Entomology (CRME-ICMR), Madurai, India.
5. Datta S. Viruses: Potential Biothreat Agents, **7th Conference of Medical Arthropodology (7CMA)**, Defence Research Laboratory, Tezpur (DRL-DRDO), December 13, 2013. Tezpur, 2013. [*Invited Lecture*]

6. **Datta S**, Gogoi HK, Veer V. Phylogenetic Characterization of a Novel Culex Associated Insect Specific Flavivirus (ISF) Sequence from Assam, India, **XII International Conference on Vector and Vector Borne Diseases (ICOV12)**, Udaipur, India, 2013. [*Oral Presentation*]
7. **Datta S**. Vector borne viral infections: Their emergence and transmission. **National Science Day Oration**. February 28, 2013, Defence Research Laboratory (DRDO), Tezpur, India. [*Nominated Lecture*]
8. Banu L, Chatterjee S, **Datta S**, Gogoi HK, Veer V, Singh L. Restoration of Wastewater Through the Development and Characterization of Uniquely Designed Treatment System. **TEZCON 2012, National Conference on Recent Developments in Health, Hygiene & Environment: Emphasising Challenges of the Troops of North-East India**, Defence Research Laboratory, Tezpur, India. 2012.
9. **Datta S**, Banerjee A, Chandra PK, Biswas A, Chakravarty R. Hepatitis B Virus Genotypes Correlate with Chronic Liver Disease in Eastern India. **17th conference of the Asian Pacific Association for the Study of the Liver (APASL)**, Kyoto, Japan. 2007.
10. **Datta S**, Banerjee A, Chandra PK, Chowdhury A, Chakravarty R. Occult HBV infection and molecular epidemiology in family members of hepatitis B infected patients. **6th Sir Dorabji Tata Centre for Research in Tropical Diseases (SDTC)**, IISc, Bangalore, India. 2005.
11. **Datta S**, Banerjee A, Chandra PK, Chakravarty R. Detection of HBV DNA and a premature stop codon in S gene, in a seronegative blood donor. **46th conference of the Indian Society of Gastroenterology (ISG)**, Visakhapatnam, India. 2005.
12. Banerjee A, **Datta S**, Chandra PK, Chowdhury A, Santra A, Bhattacharya SK, Chakravarty R. Hepatitis B virus genotypes C in Eastern India: a molecular biological study. **14th biennial conference of the Asian Pacific Association for the Study of the Liver (APASL)**, New Delhi, India. 2004.
13. Banerjee A, **Datta S**, Chowdhury A, Bhattacharya SK, Chakravarty R. Occult hepatitis B virus in eastern India and associated naturally occurring Surface gene mutants in 'AntiHBc only' individuals. **10th Asian Conference on Diarrhoeal Diseases and Nutrition (ASCODD)**, ICDDR, Dhaka, Bangladesh. 2003.
14. **Datta S**, Banerjee A, Chandra PK, Chowdhury A, Chakravarty R. Viral activity and frequency of HBeAg-ve HBV carriers in and around Kolkata. **10th congress of The Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB)**, IISc, Bangalore, India. 2003.

WORKSHOPS / SEMINARS/ SYMPOSIUMS/ CONFERENCES ATTENDED

1. Participated in ICARNEH-ASM-SBS Biosafety Awareness Program including workshops on: **"Culture of Responsibility, Pathogen Inventory Management and Safety is the Rule: Fundamentals of working with Biosafety Cabinets"**, Organized by ICAR-NEH, ASM & SBS, India, ICAR-NEH Shillong, during August 21-22, 2015.
2. Participated as organizing committee member in **SANICON2014: Recent Advances In Biodegradation of Human Wastes**, organized by Defence Research Laboratory, Tezpur (DRL-DRDO), during December 16-17, 2014.
3. Represented DRDO Life Sciences cluster at the **Young Scientists Meet 2014**, organized by Aeronautical Development Establishment (ADE, DRDO) in Bangalore during May 8-10, 2014.

4. Participated as organizing committee member in **7th CMA, 7th Conference of Medical Arthropodology, Central Theme: Herbal Insecticides, Biomedicine & Biodefence in Vector Borne Disease Management**, organized by Defence Research Laboratory, Tezpur (DRL-DRDO), during December 12-13, 2013.
5. Attended the **XII International Conference on Vector and Vector Borne Diseases (ICOV12)** organized by Dept. Of Zoology, MLSU, Udaipur & NAVBD, Bhubaneswar, held at Udaipur (Rajasthan) during September 16-18, 2013.
6. Participated in DRDO CEP course on **Biodefence Technologies**, held at Defence Bioengineering & Biomedical Laboratory (DEBEL), Bangalore during August 26-30, 2013.
7. Participated in the international conference on **Emerging and Re-emerging Pathogens & Bio-risk Management**, organized jointly by National Disaster management Authority (NDMA), US Centers for disease Control and Prevention (CDC, Atlanta) and Federation of Indian Chambers of Commerce and Industries (FICCI), New Delhi, during May 7-8, 2013.
8. Participated in DRDO CEP course on **Recent Advancement in Characterization & Diagnosis of Emerging Phytopathogens Infecting Major Crops in Northeast India**, conducted by Biotechnology Division, Defence Research Laboratory, Tezpur during February 25 to March 01, 2013.
9. Participated as organizing committee member in **TEZCON 2012, National Conference on Recent Developments in Health, Hygiene & Environment: Emphasising Challenges of the Troops of North-East India**, conducted by Defence Research Laboratory, Tezpur (DRL-DRDO), during November 6 – 8, 2012.
10. Participated in **Symposium on Bioinformatics**, conducted by Defence Research & Development Establishment, Gwalior (DRDE-DRDO), during August 22 – 24, 2012.
11. Participated in the Workshop on **Basic Principles, Preparatory Methods and Biological Application in Transmission Electron Microscopy**, conducted by Sophisticated Analytical Instrument Facility, North-Eastern Hill University, Shillong (SAIF-NEHU), during March 22 – 25, 2011.
12. Participated in DRDO CEP course on **Biomass: Technology Intervention for Sustainable Management**, conducted by Defence Research Laboratory, Tezpur during November 08 – 12, 2010.
13. Attended 2 days seminar on **Disaster Management**, Organized by Integrated Test Range (ITR), Chandipur (DRDO), during November 02 – 03, 2010.
14. Participated in training program on **Techniques in Plant Virology**, conducted by Assam Agricultural University, Jorhat, during May 03 – 08, 2010.
15. Participated in the **2009 Liver Meeting**, organized by the **American Association for the Study of Liver Diseases (AASLD)**, at Hynes Convention Center, Boston, Massachusetts, USA, during October 30 – November 3, 2009.
16. Participated in the International Symposium on **“Complex Diseases: Approaches to Gene Identification and Therapeutic Management”**, held at Saha Institute of Nuclear Physics (SINP), Kolkata, during September 25 – 26, 2008.
17. Participated in the 2nd workshop on **“Genetic Epidemiological Methods for Dissection of Complex Human Traits”** held at Kolkata, organized jointly by TCG-ISI Centre for Population Genomics (CpG), Kolkata, India and University of Pittsburgh, Pittsburgh, USA (funded by Fogarty International Center, NIH, USA), during December 13 – 21, 2004.

18. Participated and presented poster in the **10th congress of The Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB)**, held at the Indian Institute of Science (IISc), Bangalore, India, during December 7 – 11, 2003.
19. Participated in the “**National workshop cum Training on Bioinformatics and Statistics in Aquaculture Research**”, organized by Central Institute of Freshwater Aquaculture (CIFA-ICAR), Bhubaneswar, India, during January 16 -19, 2001.