

Dr. Shantanabha Das

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Academic Appointments:

- July, 2019 - Till date - Assistant Professor in Department of Zoology, DHWU, West Bengal, India
- February, 2015 – July, 2019 - Assistant Professor in West Bengal Education Services, Department of Higher Education, Govt. of West Bengal

Education:

- Ph. D. (2016) in Biotechnology, University of Calcutta. Work carried out at CSIR-Indian Institute of Chemical Biology under Dr. Syamal Roy. Thesis title – “Development of DNA vaccines against leishmaniasis”
- Master of Science (2008) in Zoology from Visva Bharati University with first class.
- Bachelor of Science (2006) in Zoology from Visva Bharati University with first class.

Awards and achievements:

- Qualified for **CSIR-JRF** in joint CSIR-UGC NET examination held in June 2008.
- Stood **first** in the B.Sc. Honours examination in Visva Bharati University.

Research Interest:

- **Immunology** - Vaccinology
Immunotherapy
T cell and B cell biology
Host-pathogen interaction

Publications:

Research Articles:

1. **Modular multiantigen T cell epitope-enriched DNA vaccine against human leishmaniasis.** Das S, Freier A, Boussoffara T, Das S, et al. **Science Translational Medicine**. 2014 Apr 30;6(234):234ra56 [Impact factor – 16.79] [ISSN: 1946-6242]
2. **Antimony resistant *Leishmania donovani* but not sensitive ones drives greater frequency of potent T-regulatory cells upon interaction with human PBMCs: role of IL-10 and TGF- β in early immune response.** Guha R*, Das S*, Ghosh J, Sundar S, Dujardin JC, Roy S. **PLoS Neglected Tropical Diseases**. 2014 Jul 17;8(7):e2995. *- **equal contribution**; [Impact factor - 3.8] [ISSN: 1935-2727, eISSN: 1935-2735]
3. **Heterologous priming-boosting with DNA and vaccinia virus expressing kinetoplastid membrane protein-11 induces potent cellular immune response and confers protection against infection with antimony resistant and sensitive strains of *Leishmania (Leishmania) donovani*.** Guha R, Das S, Ghosh J, Naskar K, Mandala A, Sundar S, Dujardin JC, Roy S. **Vaccine**. 2013 Apr 8; 31(15):1905-15. [Impact factor – 3.2] [ISSN: 0264-410X]
4. **Hyperlipidemia offers protection against *Leishmania donovani* infection: role of membrane cholesterol.** Ghosh J, Das S, Guha R, Ghosh D, Naskar K, Das A, Roy S. **Journal of Lipid Research**. 2012 Dec; 53(12):2560-72. [Impact factor – 4.81] [Print ISSN: 0022-2275, Online ISSN: 1539-7262]
5. **Liposomal cholesterol delivery activates the macrophage innate immune arm to facilitate intracellular *Leishmania donovani* killing.** Ghosh J, Guha R, Das S, Roy S. **Infection and Immunity**. 2014 Feb;82(2):607-17. [Impact factor – 3.59] [Print ISSN: 0019-9567, Online ISSN: 1098-5522]
6. **NAD(P)H cytochrome b5 oxidoreductase deficiency in *Leishmania major* results in impaired linoleate synthesis followed by increased oxidative stress and cell death.** Mukherjee S, Sen Santara S, Das S, Bose M, Roy J, Adak S. **Journal of**

Biological Chemistry. 2012 Oct 12;287(42):34992-5003. [Impact factor – 4.12]
[Online ISSN: 1083-351X]

7. **Antimony-Resistant Leishmania donovani Exploits miR-466i To Deactivate Host MyD88 for Regulating IL-10/IL-12 Levels during Early Hours of Infection.** Mukherjee B, Paul J, Mukherjee S, Mukhopadhyay R, **Das S**, Naskar K, Sundar S, Dujardin JC, Saha B, Roy S. **Journal of Immunology**. 2015 Sep 15;195(6):2731-42 [Impact factor – 4.85] [Print ISSN: 0022-1767, Online ISSN: 1550-6606]
8. **Genetic markers for antimony resistant clinical isolates differentiation from Indian Kala-azar.** Khanra S, Sarraf NR, **Das S**, Das AK, Roy S, Manna M. **Acta Tropica**. 2016 Dec; 164:177-184. [Impact factor – 2.21] [ISSN: 0001-706X]
9. **Vaccines – Safeguarding our future society against newly emerging and re-emerging diseases.** **Das S**. **Education, Research and Analysis**. 2018 Vol. 5 (1.1):33-36. [ISSN: 2348-571X]

Book Chapters:

1. **Different approaches in the quest to develop a successful vaccine against leishmaniasis.** **Das S** and Roy S. Recent Advances in Communicable and Non-communicable diseases. The National Academy of Sciences, India (NASI), Capital Publishing Company. 2016; 215-226, ISBN: 978-93-81891-31-5
2. **DNA Vaccines.** Roy S, **Das S** and Basu R. Textbook of Biochemistry, Biotechnology, Allied and Molecular Medicine. 4th Edition, PHI Learning Private limited. 2016; 1323-1330, ISBN- 978-81-203-5125-7
3. **The expanding role of vaccines in improving public health.** **Das S**. A Glimpse of Biology Beyond Textbooks. Rohini Nandan publishers. May 2018, 26-36, ISBN – 978-81-937379-5-8

Seminars/workshops:

International:

- **International Symposium on Molecular Signaling** organized by Visva Bharati. February 18-21, 2013. Poster presentation titled “**Generation of strong immunogenicity confers protection against pentavalent antimonialsensitive and**

resistant *Leishmania donovani* infection following a heterologous prime-boost (KMP-11 DNA/vaccinia virus) regimen.”

- **100 Years of Antimonials: An International Conference** organised by CSIR-Indian Institute of Chemical Biology. November 23-25, 2012. **First prize** for poster presentation titled “**Heterologous priming-boosting with DNA and vaccinia virus expressing Kinetoplastid Membrane Protein-11 induces potent cellular immune response and confers protection against infection with antimony resistant and sensitive strains of *Leishmania donovani*.**”
- **Preclinical Development of a DNA Vaccine** organized by Mologen AG, Berlin, Germany as part of European Commission 7th Framework Project. November 15-19, 2011.
- **WorldLeish4- 4th World Congress on Leishmaniasis** organized by Central Drug Research Institute, Lucknow. February 1-7, 2009
- **International Seminar on Multidisciplinary Research** organized by Vijaygarh Jyotish Ray College in collaboration with Education Research and Analysis, Kalyani Foundation for Media Science. January 29, 2018. Presented article titled “**Vaccines – safeguarding our future society against newly emerging and re-emerging diseases**”.

National:

- Symposium titled “**Elimination of Leishmaniasis by 2015: Myth or Reality?**” organized jointly by Institute of Post Graduate Medicine Education and Research (IPGMER- Kolkata), CSIR-Indian Institute of Chemical Biology (CSIR-IICB Kolkata) and School of Tropical Medicine (Kolkata). January 22, 2015. Oral presentation titled “**Antimony resistant *Leishmania donovani* drives greater frequency of potent T-regulatory cells upon interaction with human PBMCs: Role of IL-10 and TGF- β in early immune response.**”
- Annual Meet of the Society of Biological Chemists (India), Kolkata Chapter & Symposium on “**Recent Trends in Chemical Biology**”. August 23-25, 2013. Oral presentation titled “**KMP-11 encoding DNA and recombinant vaccinia virus in different prophylactic and therapeutic vaccination schedules protect against antimony resistant and sensitive *Leishmania donovani* infection.**”
- 79th Annual Meeting of the Society of Biological Chemists (India), “**Regulation of Biological and Cellular Processes in Diverse Systems**” organised by Indian Institute of Science (IISc Bangalore). December 13-15, 2010. Poster presentation titled “**Interaction of human PBMCs with drug sensitive and resistance *Leishmania donovani* isolates**”