

Samiran Saha, M. Sc., Ph. D.
Assistant Professor, Dept. of Biotechnology
Visva Bharati, Santiniketan -731235, WB, India.

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Date of Birth: 26.11.1975
Date of joining VB: 09.01.2010
Highest qualification: Ph.D.
Area of expertise/interest: Immunology, Cell Biology, Parasitic infections with special reference to *Leishmania*, Cancer Biology.
Number of research scholars produced and currently working: 3 (working)

Education:

1. Ph.D. in July, 2007, from Jadavpur University. Research was done at Indian Institute of Chemical Biology, Kolkata, CSIR.

Thesis Title: Indian Kala-azar: Mechanism of Immune Regulation in Response to Chemotherapy and its Application in Serodiagnosis.

2. M.Sc. in Zoology in 1999, from University of Calcutta.
3. B.Sc. (Hons.) in Zoology in 1997, from University of Calcutta.

Awards:

1. UGC-Raman Post Doctoral Fellowship for research in USA, 2014.
2. CSIR Research Associateship, 2009
3. DBT Post Doctoral Fellowship, 2006
4. Joint CSIR-UGC NET-JRF, June, 2000
5. Joint CSIR-UGC NET-LS, Dec, 2000
6. GATE, 2000

Employments and Experiences:

- Assistant Professor in Biotechnology, Visva-Bharati University, Santiniketan, India, from Jan 09, 2010 till date.
- Raman Postdoctoral fellow (UGC), NIH, Maryland, USA, from Dec 2014 to Nov 2015.
- Contractual lecturer in Zoology, Netaji Subhas Open University, Kolkata, from Jan 21, 2009 to Jan 7, 2010.
- Research Associate, Saha Institute of Nuclear Physics, Kolkata, under DBT Postdoctoral Fellowship from Jan 2007 to Dec 2008.
- Guest Lecturer in Zoology, Jogesh Chandra Chowdhury College, Kolkata, from Nov 2006 to Feb 2008.
- JRF followed by SRF, Indian Institute of Chemical Biology, Kolkata, under UGC-NET fellowship from Jul 2001 to Jul 2006.
- Junior Research Fellow, Bose Institute, Kolkata, in an Indo-French Project from Jul 2000 to Jun 2001.
- Part-time lecturer in Zoology, Vijoygarh Jyotish Ray College, Kolkata from Feb 2000 to Jun 2000.

Present Research Interests:

1. Immunomodulation, chemotherapy and stress response in experimental visceral leishmaniasis.
2. Autophagy – induction, regulation and Type2 programmed cell death in cancer cell lines under treatment with different bioactive molecules.
3. Immune responses, screening and mechanisms of potential therapeutic options with different biomolecules and synthetic molecules against cancer cell lines, and in murine models of Hepatic and ascetic cancer.

Research Projects :

1. **Principial Investigator** of a Twinning Project entitled 'Study of induction and mechanisms of Autophagy in EAC cells upon treatment with Theaflavins'. Started on 26.09.19 Amount sanctioned (for Visva-Bharati): Rs. 21.25 lakh. (Total Amount: Rs. 70.9712 Lakh) Collaborator: Prof. Debasish Maiti, Dept. of Human Physiology, Tripura University, Tripura. Ongoing. Collaborator: Prof. Debasish Maiti, Dept. of Human Physiology, Tripura University, Tripura.

2. **Principal Investigator** of a DBT, Govt. of India supported project entitled 'Chemotherapeutic efficacy of Theaflavins on cancer cells through induction of autophagic cell death'. Amount: Rs. 25 lakh. Started on 29.07.2015. Completed.
3. **Co-Investigator of a ICAR, NEH region supported project** entitled 'Medicinal Plants Project'. Amount Rs. 23.2 lakh. Ongoing.
3. **Principal Investigator** of a UGC, Govt. of India supported Major research project entitled 'Therapeutic and immunomodulatory potential, and mechanism of action of *Tinospora spp.* against visceral leishmaniasis' Amount: Rs. 9 lakh. Completed.

Research Articles:

1. Majumder N, Ganguly S, Ghosh AK, Kundu S, Banerjee A, **Saha S**. 2020. Chlorogenic acid acts upon *Leishmania donovani* arresting cell cycle and modulating cytokines and nitric oxide in vitro. *Parasite Immunol.* 42:e12719. ISSN: 1365-3024. IF: 2.755
Weblink: <https://onlinelibrary.wiley.com/doi/abs/10.1111/pim.12719>
2. Ejazi SA, Ghosh S, **Saha S**, Choudhury ST, Bhattacharyya A, Chatterjee M, Pandey K, Das VNR, Das P, Rahaman M, Goswami RP, Rai K, Khanal B, Bhattarai NR, Deepachandi B, Siriwardana YD, Karunaweera ND, Felinto de Brito ME, Gomes YM, Nakazawa M, Costa CHN, Adem E, Yeshanew A, Melkamu R, Fikre H, Hurissa Z, Diro E, Carrillo E, Moreno J, Ali N. 2019. A multicentric evaluation of dipstick test for serodiagnosis of visceral leishmaniasis in India, Nepal, Sri Lanka, Brazil, Ethiopia and Spain. *Sci Rep.* 9:9932. ISSN: 2025-2322. IF: 4.122
Weblink: <https://www.nature.com/articles/s41598-019-46283-9>
3. **Saha S**, Banerjee A, Verma A, Jha CK. 2014. Oral Treatment with Aqueous Solution of *Coffea canephora* Induce Protective Immune Response to Reduce Parasite Burden in Experimental Visceral Leishmaniasis. *Am J Phyt Clin Ther.* 2: 242-251. ISSN: 2321-2748. IF: 1.15
Weblink: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.678.165&rep=rep1&type=pdf>
4. **Saha S**, Goswami R, Pramanik N, Guha SK, Saha B, Rahman M, Mallick S, Modak D, Silva FO, Mendonca IL, Costa DL, Costa CHN, Ali N. 2011. Easy Test for Visceral Leishmaniasis and Post-Kala-azar Dermal Leishmaniasis. *Emerg Infect Dis.* 17:1304-1306. IF: 6.8
Weblink: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3381407/>
5. **Saha S**, Mondal S, Ravindran R, Bhowmick S, Modak D, Mallick S, Rahman M, Kar S, Goswami R, Guha SK, Pramanik N, Saha B, Ali N. 2007. IL-10 and TGF- β mediated susceptibility in kala-azar and post-kala-azar dermal leishmaniasis: the significance of Amphotericin B in the control of *Leishmania donovani* infection in India. *J Immunol.* 179: 5592-5603. IF: 6.2
Weblink: <https://www.jimmunol.org/content/179/8/5592.short>
6. **Saha S**, Mondal S, Banerjee A, Ghose J, Bhowmick S, Ali N. 2006. Immune responses in kala-azar. *Indian J Med Res.* 123:245-266.
Weblink: https://www.researchgate.net/profile/Nahid-Ali-2/publication/7006042_Immune_responses_in_kala-azar/links/53e20dc50cf2d79877aa02ed/Immune-responses-in-kala-azar.pdf
7. **Saha S**, Mazumdar T, Anam K, Ravindran R, Bairagi B, Saha B, Goswami R, Pramanik N, Guha SK, Kar S, Banerjee D, Ali N. 2005. *Leishmania* promastigote membrane antigen-based enzyme-linked immunosorbent assay and immunoblotting for differential diagnosis of Indian post-kala-azar dermal leishmaniasis. *J Clin Microbiol.* 43:1269-1277. IF: 3.2
Weblink: <https://journals.asm.org/doi/full/10.1128/JCM.43.3.1269-1277.2005>
8. Mandal D, Moitra PK, **Saha S**, Basu J. 2002. Caspase 3 regulates phosphatidylserine externalization and phagocytosis of oxidatively stressed erythrocytes. *FEBS Lett.* 513:184-188. IF: 3.4
Weblink: <https://www.sciencedirect.com/science/article/pii/S0014579302022949>

Conferences:

1. Poster: Nilanjana Majumder, Samiran Saha. Effects of environmental changes on transmission of *Leishmania* parasites. National seminar on current perspectives in Environmental Pollution: Challenges and opportunities. Dept. of Environmental Science, Tezpur University, Assam. June 7-8, 2019.
2. Poster: Arijit Kumar Ghosh, Antara Banerjee and Samiran Saha. Anticancer Efficacy Of Theaflavins In Cancer Cells Via Induction of Autophagy. Golden Jubilee International Conference on Trends in Zoology, Department of Zoology, The University of Burdwan. Jan 3-4, 2019.

3. Arijit Kumar Ghosh, Antara Banerjee and Samiran Saha. Role of Theaflavins to induce autophagy in cancer cells. State Science Congress, Sidho Kanho Birsha University, Purulia, Dec 20-21, 2018.
4. Oral presentation: **Samiran Saha**, Subhrajit Ganguly, Antara Banerjee. Therapeutic and immunomodulatory potential of new combination treatment by *Tinospora cordifolia* extracts and Amphotericin B against experimental visceral leishmaniasis. International conference on innovations for the elimination and control of visceral leishmaniasis (IEC-VL), JH-Institute of Molecular Medicine, Jamia Hamdard, New Delhi-67 Nov 28-30, 2018.
5. Poster presentation: Nilanjana Majumder, Arijit Kumar Ghosh, Antara Banerjee, Samiran Saha. In vitro anti-leishmanial activity of Chlorogenic acid through reduction of IL-10. International conference on innovations for the elimination and control of visceral leishmaniasis (IEC-VL), JH-Institute of Molecular Medicine, Jamia Hamdard, New Delhi-67 Nov 28-30, 2018.
6. Poster presentation: Subhrajit Ganguly, Arijit Kumar Ghosh, Antara Banerjee and Samiran Saha. Partial identification and characterization of antioxidative activity of *tinospora cordifolia* and its effectiveness as an immunomodulatory agent against murine visceral leishmaniasis. 3rd International conference on Perspectives of cell signaling and molecular medicine, at Bose Institute, Kolkata, from 8-10 January, 2017.
7. Oral presentation in International conference: **Samiran Saha**, Shannon Townsend, Augusto Carvalho, Shaden Kamhawi, Fabiano Oliveira, Jesus G. Valenzuela. Functional Genomics Identifies Th1-Inducing Salivary Proteins from *Phlebotomus argentipes*, the Vector of *Leishmania donovani* in the Indian Subcontinent, at the 64th Annual Meeting of the American Society of Tropical Medicine and Hygiene in Philadelphia, Pennsylvania, USA, from October 25-29, 2015.
8. Participation in International Seminar: Baltimore Vector Encounter 2015. at Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, USA, on June 5, 2015.
9. Poster presentation: Ganguly S, Sinha S, Banerjee A and **Saha S**. Partial identification and characterization of antioxidant activity of the components in methanolic extract of *Tinospora cordifolia* through thin layer chromatography. International Seminar on The Progress and Prospect of 21st Century Research in Advance Life Sciences. Department of Botany, Vivekananda Mahavidyalaya, Haripal, Hooghly, W.B. 15-17th Feb, 2014.
10. Oral presentation: **Saha S** and Ali N. Development and evaluation of easy serodiagnosis for visceral leishmaniasis and PKDL. National seminar on ecotoxicology and human health. Department of Zoology, Berhampur University, Berhampur – 760007, Odisha. January 08-09, 2012.
11. Presentation and Exhibition at 19th West Bengal State Science & Technology Congress 2012. Organized by Saha Institute of Nuclear physics, Kolkata, and WB-DST, Govt. of West Bengal. 1-2 March, 2012.
12. Poster presentation: Saha S, Goswami R, Pramanik N, et al. Development and Evaluation of *Leishmania donovani* Promastigote Membrane Antigen-Based Serodiagnosis of Visceral Leishmaniasis and Post Kala-azar Dermal Leishmaniasis. 37th Annual Conference of Indian Immunology Society, Department of Immunology & Molecular Medicine, Sher-i-Kashmir Institute of Medical Sciences, Srinagar, India, February 7-9, 2011.
13. Poster presentation: Nag, A. G., Maity, A. K., Gayen M., Saha, S. and Saha, P. Identification of substrates of cyclin dependent kinases from *L. donovani*. 76th SBC Annual Meeting, Sri Venkateswara University, Tirupathy, India, Nov 25-27, 2007.
14. Oral presentation: Saha, S., Mazumder, T., Ravindran, R., Banerjee, A., Ghose, J., Bhowmick, S., Mondal, S., Bairagi, B., Saha, B., Goswami, R. P., Pramanik, N., Guha, S. K., Kar, S., Banerjee, D., and Ali, N. *Leishmania* promastigote membrane antigen based ELISA and immunoblotting for the differential diagnosis of Indian PKDL. “Emerging Areas in Biology” organized by Society of Biological Chemists (I), Calcutta Branch, Digha, India, April 9-11, 2004.
15. Poster presentation: Saha, S., Ravindran, R., Bhowmick (Pal), S., Bairagi, B., Saha, B., Goswami, R., Pramanik, N., Guha, S. K., Banerjee, D., and Ali, N. Therapy induced immune modulations in Indian

kala-azar and post-kala-azar dermal leishmaniasis. 31st Annual Conference, The Indian Immunology Society, Anna University, Centre for Biotechnology, Chennai, India, December 15-18, 2004.

16. Poster presentation: Dey, T., Saha, S., Rajesh, R., Bairagi, B., Goswami, R. P., Pramanik, N., Guha, S. K., Gupta, P. N., Saha, B., Banerjee, D., and Ali, N. Immunoglobulin subclass distribution and cell mediated immune response in Indian PKDL patients. “XXIX Annual Meeting of the Indian Immunology Society & Symposium on immunoparasitology”, Bhubaneswar, India, November 27-29, 2002.

Workshops:

	Name of the Course/ Programme/Training	Place & Instt	Duration (Dates)	Sponsoring Agency Academies/Universities
1	Orientation Programme	UGC-ASC University of Calcutta, Kolkata.	June 23 to July 21, 2012	UGC-ASC University of Calcutta
2	International Workshop on Applications of Flow cytometry and Imaging in Cell Biology and Nano-Biotechnology, at, from	Centre for Research in Nanoscience and Nanotechnology,	August 11 to 18, 2012	University of Calcutta, BD Biosciences
3	Refresher course in 'Interdisciplinary research towards the development of modern food and Bioprocess technology'	Dept. of Food Technology, Jadavpur University, Kolkata	June 26 to July 16, 2013.	UGC-ASC, Jadavpur University,
4	Refresher Course in Biological Sciences	HRDC, University of Calcutta, Kolkata.	2 Jan -22 Jan, 2019	UGC
5	NIH Laboratory Safety Training 101	Division of Occupational Health and Safety, NIH, Maryland, USA	30 Jan, 2015	National Institute of Health, USA
6	Using Animals in Intramural Research: Guidelines for Animal Users	Office of Animal Care and Use, NIH, Maryland, USA	26 Jan, 2015	National Institute of Health, USA
7	Working Safely with HIV and Other Bloodborne Pathogens for Non-hospital Personnel	Safety Training Program, NIH, Maryland, USA	20 Jan, 2015	National Institute of Health, USA
8	Introduction to Lab Safety – On-line Training	Division of Occupational Health and Safety, NIH, Maryland, USA	12 Jan, 2015	National Institute of Health, USA

Personal informations:

Nationality: Indian

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Date: 09.06.2021

Place: Santiniketan, WB, India.